Supporting Statement Outline – Leading Edge Supply Chain Study

A. JUSTIFICATION

1. Need for the Information Collection

Describe the information collection activity under review. Explain precisely why it is necessary; i.e., why the Department of Defense needs the information required by the proposed collection. Identify any legal or administrative requirements that mandate the collection, and include the title page and relevant portions thereof in your proposal package. Also include a copy of the relevant portions of any other statutes or regulation referenced in this supporting statement.

The study is being conducted to support the mission of the Air Force Research Laboratory (AFRL), Management Technology Division, in the discovery, development, and integration of warfighting technologies and processes for the United States air, space and cyberspace forces. Specifically, this study seeks to uncover the emerging trends in supply chain management (SCM) practices, processes and metrics that could be beneficial to the Department of Defense, with particular emphasis on the U.S. Air Force. Innovations in supply chain management continue to transform both military organizations and the private business sector. As such, this study is designed to analyze the best practices and emerging trends in the business sector with respect to supply chain management and make recommendations on their adaptability to the Department of Defense.

2. Use of the Information

Be specific in describing how, by whom, and for what purpose the information is to be used. Unless this is a new collection, describe how the information has been used in the past. Identify all formats used to collect the information in this paragraph.

The research team conducting this study is located at the Air Force Institute of Technology (AFIT), Department of Operational Sciences, Wright-Patterson AFB, Ohio. The lead members of the research team are AFIT professors, with extensive knowledge of research in the field of logistics and supply chain management.

The research team has created a survey instrument, which will be sent to the senior logistics or SCM executives of private U.S. companies (hereafter referred to as respondents). The companies included in the study will be determined based on 1) their leadership in SCM practices and identified in the academic and trade literature 2) their association with leading SCM professional organizations and 3) recommendations from the sponsor (AFRL, Management Technology Division). The data from the survey will used to identify emerging supply chain management trends in business. All results will be aggregated to ensure that no individual person or firm can be identified in the final report to be prepared and presented to the AFRL.

3. Use of Information Technology

Does the information collection involve the use of technological collection techniques; e.g., electronic response submission? Describe any consideration given to the use of information technology in reducing the respondent burden or why its use is not appropriate to the specific collection.

The survey will be administered through a web-enabled program. Respondents will receive a link to the survey via email. The on-line survey will reduce the amount of time necessary to complete the survey and eliminate the need to return a hard-copy of the survey to the research team. Further, the on-line survey will eliminate illegible responses, thereby minimizing requests to the respondents in order to clarify survey responses.

4. Non-duplication

Is there information already available which can be used, or modified for use, for the purposes of this collection?

The last industry study conducted in the area of supply chain management best-practices was published in 1996. Since then, business processes, practices, and metrics have changed significantly. Information regarding emerging trends in the academic and trade literature is disaggregate, at best, and limited in scope.

5. Burden on Small Business

If any of the respondents are small businesses or other small entities, discuss efforts taken to minimize the burden imposed by this collection; i.e., developing separate or simplified requirements, etc.

There should be no additional burden on small business entities.

6. Less Frequent Collection

What would be the consequences if the collection were conducted less frequently? If there are technical or legal obstacles to reducing the burden in this manner, explain.

The collection of this data will occur only once. The respondent will complete the task once they submit the survey.

7. Paperwork Reduction Act Guidelines

Explain any special circumstances that require the collection to be conducted in a manner inconsistent with the guidelines delineated in 5 CFR 1320.5(d)(2).

Collection of the data will be consistent with 5 CFR 1320.5(d)(2).

8. Consultation and Public Comments

a. Identify the date and page number of publication in the Federal Register of the Agency's 60-day notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Include a summary of any public comments received as a result of the 60-day Federal Register Notice, and address actions taken in response to those comments. If no comments were received, so state.

A 60-day Federal Register notice was published as required by 5 CFR 1320.8(d). No comments were received.

b. Describe efforts made to consult with persons outside the sponsoring Agency regarding availability of requested information, frequency of collection, clarity of instructions, etc. Consultation with respondents, or their representatives, should occur at least every 3 years, even if the information collection does not change. If there are circumstances that mitigate against consultation, explain. This item does not refer to consultants, per se. Rather, it addresses the act of consulting with others to determine continued viability of collection elements, procedures, etc.

The survey instrument was developed in consultation with professors from the University of Michigan and Auburn University who are experts in this type of study to ensure clarity of the survey questions and instructions.

9. Gifts or Payment

Explain any decision to provide payment or gifts to respondents, other than remuneration of contractors or grantees.

No gifts or payments will be offered to respondents.

10. Confidentiality

Describe the extent of confidentiality inherent in the information collection. Address such things as protection provided against disclosure of information containing personal or organizational identifiers, disposal of completed forms or surveys, etc.

The research team will protect all survey responses to the extent permitted by law, as stated in the survey introduction and instructions. The survey does NOT seek to collect proprietary information or trade secrets. Rather, the survey will ask for the opinions of respondents with respect to SCM practices within their company that will shape industry in the next 3-5 years. The respondent’s name, position and contact information (email/phone) will be collected only in the rare event that clarification is required and to provide summarized copies of the results to respondents. Any information that is released to the sponsor and/or published in academic journals will be aggregated so that no individual respondent or company can be identified.

At the conclusion of the study data will be aggregated and sanitized to remove individual respondent and company-specific information. This aggregated data will be maintained by the research team to provide a basis for longitudinal studies that may occur in the future. Collected data will be stored in a secure office on one government computer. As stated, individual responses will be aggregated reducing the possibility of attribution of specific inputs. All individual responses will be erased/deleted/destroyed upon completion of data aggregation and follow-up clarification.

11. Sensitive Questions

Provide thorough justification for any questions of a sensitive nature, such as those pertaining to sexual behavior or attitudes, religious beliefs, race and/or ethnicity, or other matters usually considered private such as the collection of the SSN. Does the question violate the Privacy Act (Reference (w)), as implemented by DoD 5400.11-R (Reference (k))? What explanation of the necessity for collecting this data will be provided the respondents prior to their responding?

This survey instrument does NOT include sensitive questions pertaining to sexual behavior or attitudes, religious beliefs, race, ethnicity, or other information protected by the Privacy Act.

12. Respondent Burden, and its Labor Costs

a. Estimation of Respondent Burden

Explain how the burden estimate reported in Item 13 of the OMB Form 83-I was determined. While not required, consultation with a sample of the potential respondents is desirable. Remember, however, that your sample must be of fewer than 10 potential respondents or the sample effort itself must be approved by OMB.

If the collection consists of more than a single instrument of collection; i.e., form, survey, questionnaire, etc., provide burden estimates for each instrument, and aggregate the total burden in Item 13, of OMB Form 83-I.

Based on the test of the survey instrument with a sample of representative respondents (fewer than 10 test-respondents), the estimated time to complete the survey is approximately 45 minutes. The survey is divided into four sections that may be answered by four different individuals within each company surveyed, thereby reducing the estimated burden of each respondent.

Number of respondents: 818
Responses per respondent: 1
Annual responses: 818
Response time: 45 minutes
Annual burden hours: 614 hours

b. Labor Cost of Respondent Burden

Provide an estimate of annualized cost to respondents of only the burden hours imposed by the collection. Do not include capital, start-up, contracting out, or operations and maintenance costs. Respondent cost other then burden hour costs should be shown in Item 13 of the Supporting Statement.

The cost to complete the survey is a one-time cost. Labor costs will vary by company depending on the labor rate of each individual respondent.

13. Respondent Costs Other Than Burden Hour Costs

Provide an estimate of annualized costs to respondents, other than the burden hour costs addressed in Item 12, resulting from the collection of information. This item expands upon the entries in Item 14 of OMB Form 83-I. Break this item into two components:

a. Total capital and start-up costs annualized over the expected useful life of the item(s). Capital and start-up costs include the purchase of computers and software; testing equipment; and record storage facilities.

b. Total operation and maintenance costs. Take into account those costs associated with generating, maintaining, and disclosing or providing the information. O&M costs include such activities as contracting out for services and operational expenses, e.g., postage and printing.

There are no costs associated with completion of the survey other than labor costs. The survey requires no capital, start-up, or O&M costs. The on-line nature of the survey eliminates the need to print and mail survey responses.

14. Cost to the Federal Government

Annualize the costs incurred by the Federal Government in collecting and processing the information collected, and explain the methods used in determining these estimates. Include such elements as quantification of hours, operational expenses; i.e., equipment, overhead, printing, support staff, postage, contracting out for services, etc., and any other expense that would not have been incurred without this information collection. These costs, along with those estimated in items 12 and 13, may be aggregated in a single table.

There are no additional costs associated with this data collection. Data collection will utilize existing software already owned by USAF/AFIT. Research team members are already employed by AFIT and no additional personnel will be hired to collect data.

15. Reasons for Change in Burden

Briefly explain the reason for change in burden, if any, as indicated in Item 13 of OMB Form 83-I. Remember that any proposal which starts from a current OMB inventory of "0" hours must be a Program Change, e.g., reinstatement of a previously approved collection for which approval has expired or a new collection. (See OMB Form 83-I for explanation of program change or program adjustment.)

This is a new collection.

16. Publication of Results

If the results of the information collection will be published for statistical use, outline plans for tabulation, statistical analyses, and publication. Provide a timeline for the entire project including the beginning and ending dates of the actual collecting of information, estimated completion date of the report, its publication date, as well as any other scheduled actions.

Analysis of data will be conducted using standard regression techniques, to include the potential use of Structural Equation Modeling. Data collection will begin upon OMB approval (approx. Jan 11) and will continue for six months (July 11). Upon completion of data analysis, the process of writing the report should take approximately five months (Dec 11). Currently, there is no plan to publish a final report for statistical use.

17. Non-Display of OMB Expiration Date

If you are requesting approval to omit display of the expiration date of OMB approval on the instrument of collection, provide justification for this request.

No exception requested.

18. Exceptions to "Certification for Paperwork Reduction Submissions"

Use this item to explain any provision of Item 19.a of OMB Form 83-I to which you cannot certify. You should also have identified these items at the bottom of Item 19.a. Unless you can demonstrate that these exceptions are necessary to satisfy statutory requirements, or other substantial need, OMB will not approve the collection of information.

No exceptions requested.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

If the collection of information employs statistical methods, it should be indicated in Item 17 of OMB Form 83-I, and the following information should be provided in this Supporting Statement:

1. Description of the Activity

Describe the potential respondent universe and any sampling or other method used to select respondents. Data on the number of entities covered in the collection should be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate the expected response rates for the collection as a whole, as well as the actual response rates achieved during the last collection, if previously conducted.

Potential respondents to this survey are individuals with in depth experience in commercial supply chain management. While this universe could include all managers within commercial industry, the study only requires a representative sample. The Council of Supply Chain Management Professionals (CSCMP) is the largest professional organization in this field. Their membership represents organizations from large to small in every industry. The use of CSCMP membership list has been justified as representative of the entire field in several published studies with generalizable results. As with similar studies utilizing email surveys we expect the response rate to be between 3-8%. This is the first collection of this data, so no previous response rates apply. We have no intention of stratifying the sample.

2. Procedures for the Collection of Information

Describe any of the following if they are used in the collection of information:

a. Statistical methodologies for stratification and sample selection;

We are using the membership roster of CSCMP as our universe. We do not intend to stratify this roster.

b. Estimation procedures;

We estimate a sample size of 818 will be required (based on alpha level of .05, 10 predictors, effect size of .02 and desired power level of .8).

c. Degree of accuracy needed for the Purpose discussed in the justification;

See above.

d. Unusual problems requiring specialized sampling procedures; and

N/A

e. Use of periodic or cyclical data collections to reduce respondent burden.

N/A

3. Maximization of Response Rates, Non-response, and Reliability

Discuss methods used to maximize response rates and to deal with instances of non-response. Describe any techniques used to ensure the accuracy and reliability of responses is adequate for intended purposes. Additionally, if the collection is based on sampling, ensure that the data can be generalized to the universe under study. If not, provide special justification.

The study subject matter is a relatively ‘hot’ issue in logistics and supply chain management, which should induce interest. While no monetary reward will be offered, summarized versions of the research will be made available to all participants upon completion of the study (via email) to entice participation. This research is based on the opinions of qualified subject matter experts, while comparisons can be made to similar research conducted over twenty years ago, leading edge practices are expected to be quite different.

Respondents will be contacted approximately two weeks after initial emails are sent in an effort to follow-up on non-respondents. A comparison of early respondents versus late respondents will also be made and analyzed for differences.

4. Tests of Procedures

Describe any tests of procedures or methods to be undertaken. Testing of potential respondents (9 or fewer) is encouraged as a means of refining proposed collections to reduce respondent burden, as well as to improve the collection instrument utility. These tests check for internal consistency and the effectiveness of previous similar collection activities.

Testing of the instrument has been extremely successful thus far. Seven respondents have provided inputs that assisted in clarification of survey instrument items. Respondent inputs have been in-line with expected results.

5. Statistical Consultation and Information Analysis

a. Provide names and telephone number of individual(s) consulted on statistical aspects of the design.

Lt Col Joseph B. Skipper, PhD; 937-255-3636 x7948 – Air Force Institute of Technology
Dr. William C. Cunningham; 937-255-3636 x4283 – Air Force Institute of Technology
Dr. Pamela S. Donovan; 937-255-3636 x4510 – Air Force Institute of Technology
Maj Daniel D. Mattioda, PhD; 937-255-3636 x7946 – Air Force Institute of Technology
Lt Col Doral E. Sandlin, PhD; 937-255-3636 x4533 – Air Force Institute of Technology

b. Provide name and organization of person(s) who will actually collect and analyze the collected information.

Same as above.