

Chemometrics and Industry a Successful Marriage?

(I could tell you but then I'd have to kill you.)

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Chemometrics and Industry: A Successful Marriage?

https://software.eigenvector.com/survey/

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Survey for FACSS 2006 Session on Chemometrics and Industry

The upcoming Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) meeting will include a session titled "Chemometrics and Industry: A Successful Marriage?" The following survey was developed to help answer that question. We'd appreciate it if you'd take a few minutes to fill it out. Please note that this survey is intended for those working in **industry** rather than **academics**.

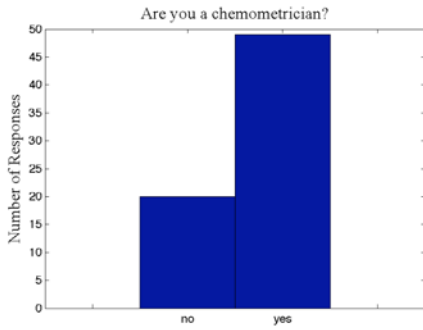
The survey responses will be kept **strictly confidential** and can be **ANONYMOUS** (absolutely NO personally-identifying information will be logged, not even your IP address). However, as an incentive for filling it out, the first 50 participants who include their mailing address (or an anonymous PO box) will receive one of Eigenvector's new "Ergo Aluminum Bottle Openers".

The results of this survey will be presented at FACSS and made available by request.

Please indicate how strongly you agree or disagree with the following statements using the scale:
-2 = strongly disagree, -1 = disagree, 0 = neutral, 1 = agree, 2 = strongly agree.

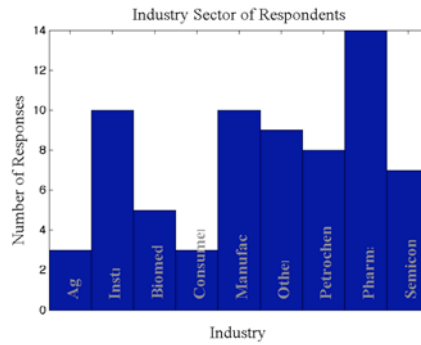
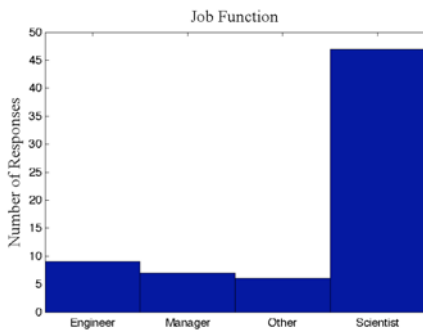
	< strongly disagree	Neutral	agree strongly >
1. The availability of chemometrics technology has improved my company's bottom line.	<input type="radio"/> -2	<input type="radio"/> -1	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
2. Having a trained chemometrician on staff has improved my company's bottom line.	<input type="radio"/> -2	<input type="radio"/> -1	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
3. Our chemometric applications have been highly successful.	<input type="radio"/> -2	<input type="radio"/> -1	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2
4. The percentage of our chemometric applications still in use one year after development is about	<input type="radio"/> 10%	<input type="radio"/> 30%	<input type="radio"/> 50% <input type="radio"/> 70% <input type="radio"/> 90%



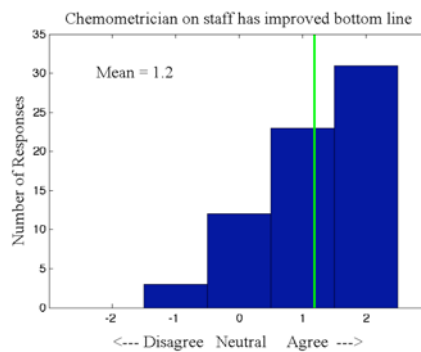
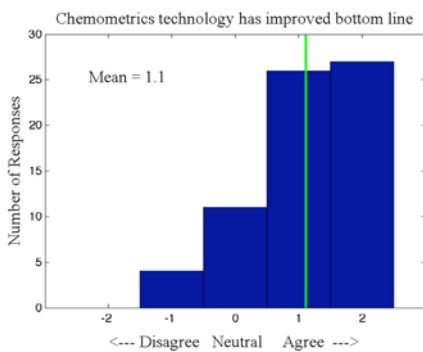


Who took the survey?

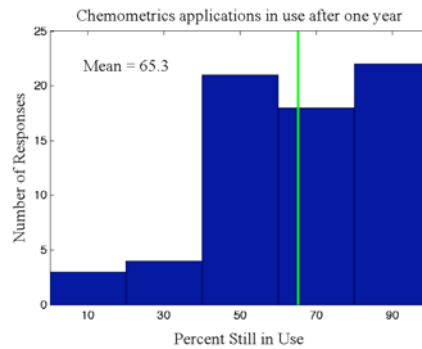
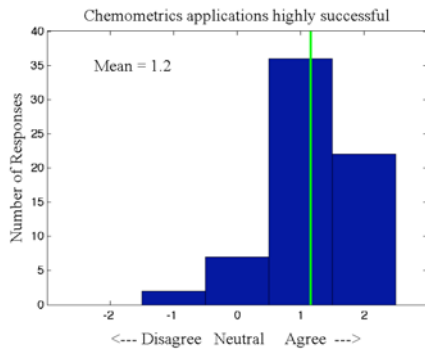
69 responses



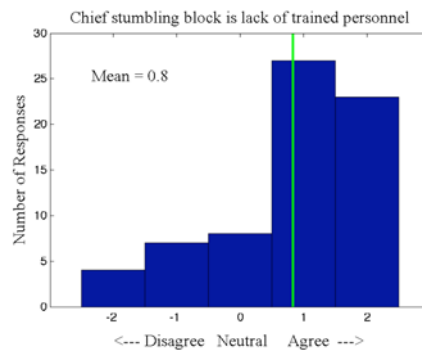
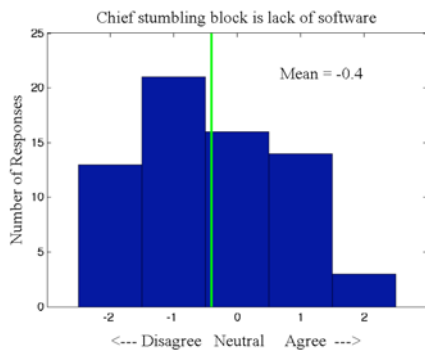
Chemometrics has positive impact on bottom line



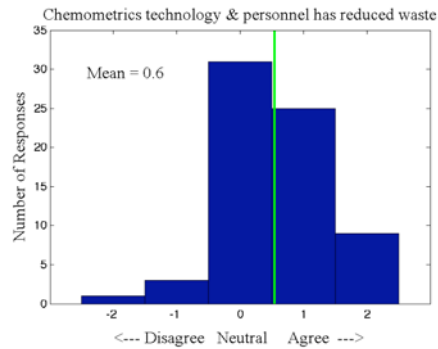
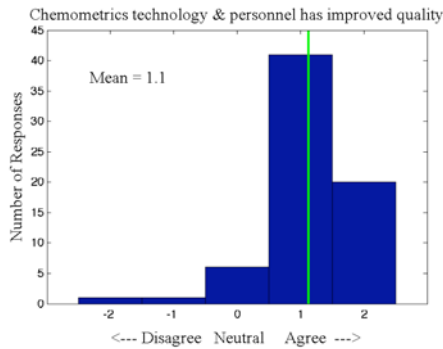
Applications successful and remain in use



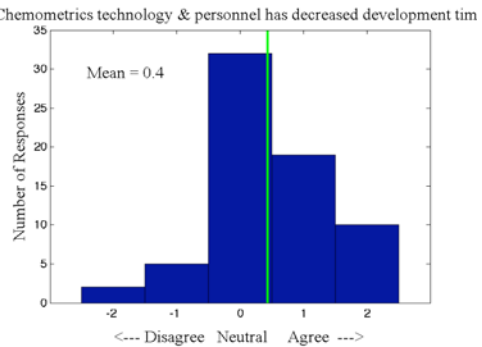
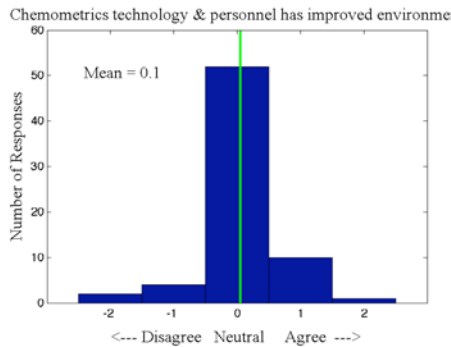
Implementation problems due to lack of people, not software



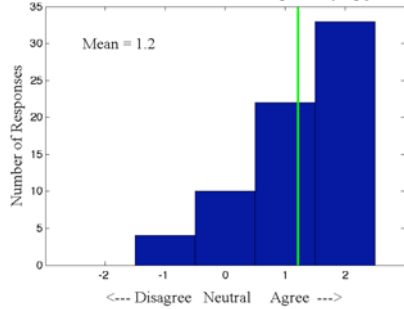
Product quality improved and some waste reduced



Less impact on environment and development time

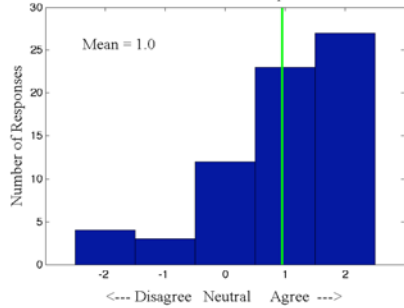


Chemometrics main value is understanding underlying phenomena

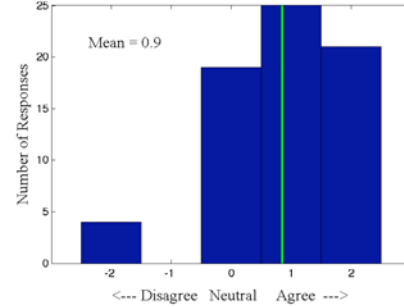


Users see value in several main usage areas

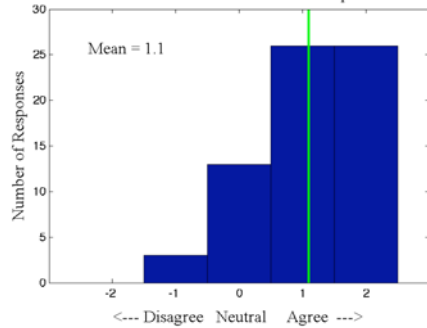
Chemometrics main value is in process control



Chemometrics main value is in process monitoring & fault detection

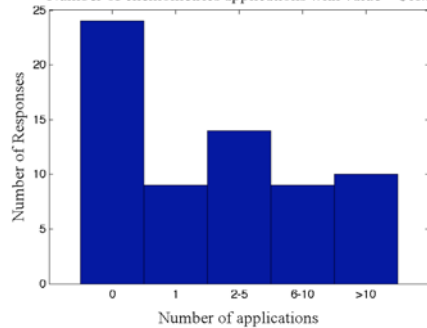


Investment in chemometrics has more than paid for itself

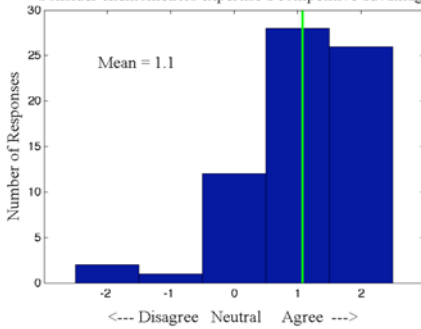


Chemometrics appears to be paying for itself...

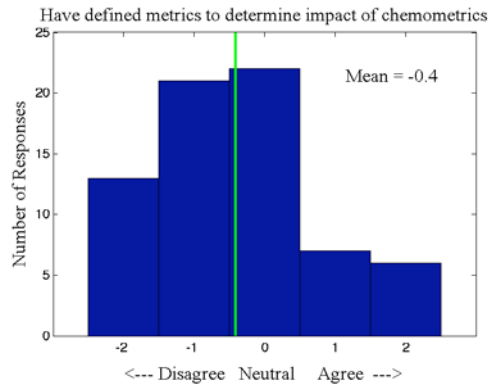
Number of chemometrics applications with value > \$1M



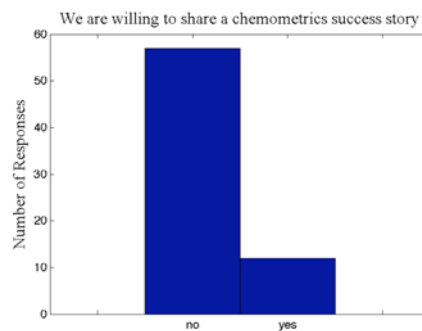
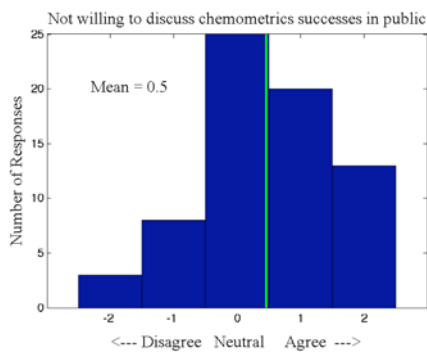
Consider chemometrics expertise a competitive advantage



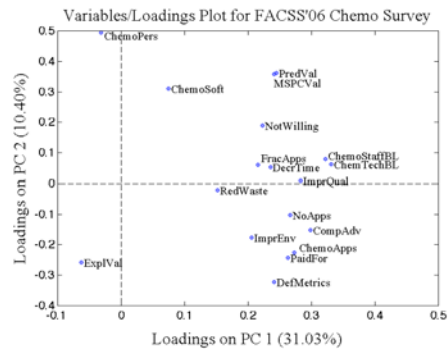
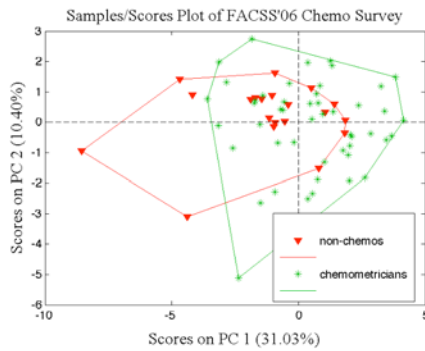
...but most haven't defined metrics to quantify impact



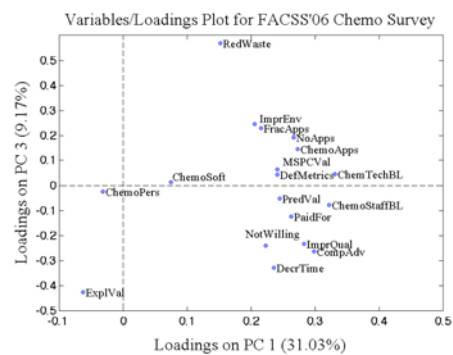
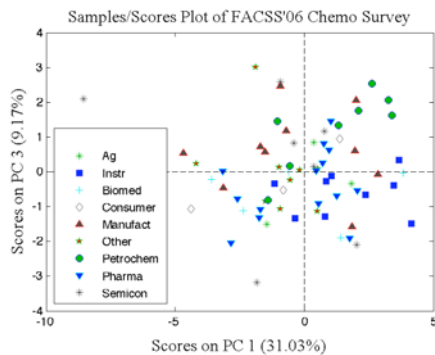
Majority are not willing to share their success stories!



Chemometricians a little more enthusiastic than non-chemos



Split between petrochemical and instrument makers



Comments...

Many of the questions seemed to... [say] that importance is based on amount of money saved. In my area of work (in Research as opposed to Development or Engineering), the impact and value of chemometrics has been to enable things that weren't possible before. The impact in dollars of this is difficult to quantitate.

A Pharmaceutical Scientist



...comments...

A very vital yet scarce skill set. Universities that offer science based courses should include a chemometrics module in all undergraduate courses.

A Pharmaceutical Manager



...comments...

Questions 5 and 6 would have benefited from "more choices". The chief obstacle that I encounter is the lack of software interoperability.

A Manufacturing Engineer



...comments...

Our reasons for not being willing to share may have more to do with bureaucratic hassles than actually trying to keep things secret for competitive advantage purposes.

A Manufacturing Engineer



...last comment.

Unless we can make Chemometrics easier and cheaper to use I believe it will be relegated within the process analytics community to a very small role.

At this point I think its more of an expensive hooker than a marriage.

A Petrochemical Engineer



Conclusions

- Chemometrics is playing a crucial role in many important industrial applications
- Still some areas that need attention
 - Software interoperability
 - Cost
 - Lack of trained personnel
- Like any marriage, still some areas to work on
- Successful-I think so!

