

# FACTORS CONTRIBUTING TO DIFFERENT FORMS OF MAVERICK BUYING: AN EMPIRICAL TEST IN THE GOVERNMENT OF FINLAND

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**ABSTRACT.** Maverick buying, the off-contract buying of goods and services for which an established procurement process is in place based on pre-negotiated contracts with selected suppliers, is common in organizations using central frame agreements. Maverick buying can hinder organizations from gaining the benefits from purchasing centralization. This paper focuses on three types of maverick buying drawn from previous literature. Survey data on Finnish governmental procurement is used to test whether characteristics of users and their work contexts affect the reasons for engaging in maverick buying. The results provide guidance on how different types of maverick buying in an organization can be reduced. Specifically, it is shown that all types of maverick buying can be reduced by limiting the task autonomy of the contract users. Additionally, different types of training can help eradicate the behaviour. Investing in reward and sanction systems, however, does not appear helpful in reducing MB of any type.

## INTRODUCTION

Maverick buying is defined as the off-contract buying of goods and services for which an established procurement process is in place based on pre-negotiated contracts with selected suppliers (Karjalainen et al., 2009). Many organizations, both public and private, have brought (a significant) part of their spend under frame agreements, with the intent to benefit from cost reductions and/or better terms and conditions. Unfortunately, maverick buying (MB) is common in organizations where central frame agreements are in place.

According to Cox et al. (2005a), there is a fairly high incidence of internal clients in most organizations who either buy outside established contracts or use procedures that are not compatible with optimising value for money. Purchasing benchmark reports back up

this view of MB as a common phenomenon: the percentage of compliant transactions is said to be less than 50% on average (Aberdeen, 2009). Karjalainen et al. (2009) suggest that in Finnish public procurement, compliance rates range between 20% and 80%. Noncompliance may occur for reasons internal to the buying organization or for reasons attributed to a supplier (Aberdeen, 2009; Kulp et al., 2006). In this paper, the focus is only on noncompliance due to internal reasons.

As Kulp et al. (2006) point out, to drive contract compliance, one must first understand where the problems of noncompliance lie, but researchers have hardly studied the compliance and control issues associated with procurement contracting. The industrial purchasing process can be seen as affected by a number of complexities induced by the nature of purchased products, the organizational structure and the influences of the external environment (Kotteaku et al., 1995). Roy (2003) suggests that theoretically the conceptions of business buying have assumed buying organizations to become cohesive, single, predictable entities once the buying centre forms and decides on a supplier. Previous research has thus focused upstream on buying centre formation and decision-making (e.g. Lau et al., 1999; Morris et al., 1999) and approved supplier enlistment, rather than examining how the buying organization behaves after a supplier has been selected. Clearly, there is call for research on contract compliance, and this study will focus on contributing to knowledge on the topics. Maverick buying is a common problem to both private and public organizations centralizing their purchasing activities. As Johnson (1999) however points out, despite the substantial total value of purchases by public sector organizations, most research in the supply area has focused on private sector issues. Public procurement still lags far behind private sector procurement in scientific analysis and accumulated knowledge (Telgen et al. 2007). According to Johnson (1999) the organizational changes (to which maverick buying is related to) that are occurring in the area of public purchasing have especially been ignored in previous research. Telgen et al. (2007) also suggest that papers about public procurement are usually either in documentary format or limited to a specific aspect. This research takes another type of perspective. The problem studied is general to the field of purchasing and supply management, both to public and private procurement, but the empirical data will be collected from the public sector, to further not only knowledge regarding the phenomena studied but also the field of public procurement.

Karjalainen et al. (2009) draw a connection between maverick buying and the literature on deviant work behaviour. They argue that MB fits the definition of deviant work behaviour (Marcus and Schuler, 2004) as MB is a volitional act, is potentially harmful to the organisation,

and the potential benefits most likely do not outweigh the legitimate interests of the organisation in terms of compliant purchasing. Several studies have reported that some forms of deviance are more likely to involve employees who are young, new to their job, work part-time, and have low-paying positions (Appelbaum and Shapiro, 2006). Appelbaum et al. (2005) also suggest that operational environment is a good predictor of employees engaging in deviant workplace behaviour. Even though an individual may uphold the highest moral standards, the type of organization one works for (incl. organizational culture and climate and supervisory behaviour) exerts a strong influence on their members and may predispose them to engaging in deviant behaviour (Appelbaum and Shapiro, 2006). Another view suggests that workplace deviance is situation-based behaviour, proposing that certain conditions of the organizational environment predispose employees to deviance (Henle, 2005). Situation-based deviance proposes that employees will conduct deviant acts depending on the workplace environment, irrespective of personal characteristics (Henle, 2005). According to Vardi (2001), organisational factors such as norms, culture, built-in opportunity and reward and control systems have also been emphasised as contributing to employee misconduct at work. This paper focuses on exploring what characteristics of the employee, their unit and the contextual situation of the purchase contribute to the existence of different maverick buying behaviours that have been identified in previous research (e.g., Karjalainen et al. 2009, Kulp et al. 2006).

Karjalainen et al. (2009) have developed a conceptual framework of the different forms of maverick buying and the reasons leading to them based on a systematic literature review and in-depth interviews. Kulp et al. (2006) used a case study in one organization to identify reasons for MB. To the best of our knowledge, these are the first two studies to systematically unravel the maverick buying concept and identify different forms of MB. Empirical tests are the logical next step in investigating this phenomenon and thus, this paper uses survey data to examine the prevalence of three types of MB among frame agreement users within the Finnish government. The paper begins with a literature review on maverick buying. The focus is then put on three specific reasons for engaging in MB: because of 1) getting better terms and conditions, 2) preferring a non-contracted supplier because of an already existing relationship with that supplier and 3) not being aware of frame agreements in the purchase category. We test whether characteristics of the user and their work context affect the reasons for engaging in maverick buying behaviour, as provided by the respondents. The specific task-related and unit-related context characteristics as contributing factors to these different forms of maverick buying are drawn from previous literature in the fields of purchasing and supply management and

organizational behaviour. No hypotheses will be formed as the research approach is exploratory. Given the limited research on maverick buying in literature so far, there is not sufficient previous knowledge on the phenomenon to formulate detailed hypotheses regarding the relationships between the specific contributing factors and the different forms; thus an exploratory method is merited. We use Analysis of Variance (Anova) for our analyses. We conclude the paper with a summary of the key findings, the limitations, and our suggestions for further research.

### **MAVERICK BUYING**

Maverick buying is defined as the off-contract buying of goods and services for which an established procurement process is in place based on pre-negotiated contracts with selected suppliers (Karjalainen et al., 2009). In the literature, terms such as nonconforming purchase behaviour (Roy, 2003) and non-compliant purchasing (Kulp et al., 2006) are also being used to describe this phenomenon.

Maverick buying can take various forms in an organization. A secretary tasked with getting corporate gifts for visitors goes shopping for decorative glass items at a department store instead of purchasing the specified gift items from the designer outlet contracted. The annual window cleaning is awarded to a local family business instead of using the selected cleaning service provider that handles other every-day office cleaning tasks. Workers from a construction site take the company van to get supplies instead of ordering them to the site using the established procurement process. A government official may spend half a working day searching in online stores and local shops for a mobile phone also available through frame agreements believing that the 10% lower price has saved his organization money.

Frame agreements are established because organizations expect to benefit from increased spend visibility, increased purchasing leverage due to consolidated spend, and/or from reduced total cost and risk. Naturally, some spend fragmentation will always arise in all organizations as standardizing on certain supply inputs is uneconomic and issues of asset specificity need to be considered (Lonsdale and Watson, 2005). Still, for those items for which frame agreements are in place, high compliance to contracts is desirable because MB hinders organizations from gaining the expected benefits of centralization efforts and creating excess costs. Kulp et al. (2006) estimate that about 20–30% of unrealised cost savings occur due to maverick buying. MB increases purchasing costs by affecting both the actual purchasing prices and the process costs (Karjalainen et al.

2009). The fragmentation of spend due to MB is likely to undermine the ability to negotiate favourable price and service levels with suppliers (Cuganesan and Lee, 2006). Maverick buying also deprives a firm the ability to collect data on spend patterns, causing it to lose visibility over its expenditures (Angeles and Nath, 2007). MB is said to raise procurement costs by as much as 20 % compared to purchases negotiated by the firm's purchasing professionals (Angeles and Nath, 2007). The problem of maverick buying is common to both private and public organizations centralizing their purchasing activities. Perhaps the issue to what extent centralization does bring the expected savings and how purchasing policies are being followed by individual buyers is even more relevant in the public sector, however, where tax payers' money is being spent. In Finland, for example, annual public sector purchases estimated to possibly fall under the centralized framework agreements are close to 1 billion Euro. With compliance rates ranging between 20% and 80% for these contracts, the potential for inefficient use of tax-generated incomes is significant.

In the literature, MB has mostly been associated with the purchases of indirect materials, especially those related to maintenance, repair and operations (MRO) (e.g. Cox et al., 2005b; Cuganesan and Lee, 2006; De Boer et al., 2002; Kulp et al., 2006; Michaelides et al., 2003). Indirect spending constitutes a relatively large share of an organization's external spending, amounting to up to 20% of all purchases (by value) and 70–90% (by numbers) of purchase orders, shipment expenses, and invoices processed (Cox et al. 2005b). A compliance rate as low as 25–50% for MRO purchasing is not uncommon (Cox et al. 2005b). The reason is that these types of purchases are generally associated with a high number of transactions of relatively low value. Indirect spend is seen by line-personnel as unimportant and inconvenient (Cuganesan and Lee, 2006). Specific product categories mentioned as suffering from MB are office supplies and hotel contracts (Kulp et al., 2006), stationery, travel, printing, and IT hardware and software (Cuganesan and Lee, 2006).

According to Kulp et al. (2006), organizations differ in structure and culture and therefore in the main drivers of noncompliance. In previous literature, different forms of maverick buying have been identified with the use of a systematic literature review and interviews by Karjalainen et al. (2009) and in a case study of a pharmaceutical company GlaxoSmithKline by Kulp et al. (2006). From these sources, we have distilled three common reasons for maverick buying, which we have included in our analyses. These are maverick buying to get better terms and conditions, maverick buying to maintain an existing supplier relationship, and maverick buying due to unawareness of a frame agreement.

### ***Maverick Buying to Get Better Terms and Conditions***

Depending on the type of product or service, operational buyers in an organization can often compare the terms and conditions (in particular, the price) of an item when bought within and outside the centrally negotiated frame agreement. Quite often, employees can find a local alternative for a lower price than the contracted item and perceive such a local alternative to be more cost effective for themselves, for their unit, or perhaps for the organization as a whole. Such comparisons however, generally do not take considerations of total cost of ownership (TCO) or risk exposure of the organization into account (Karjalainen et al. 2009). Employees purchasing a lower-priced local alternative do not take their own search and procurement costs into account, ignore discounts foregone on the frame agreement when contracted volumes are not achieved, and are unaware of risks that may exist in relation to cancellation fees, guarantees, and terms and conditions for after sales services. This reason for MB may represent positive deviance (in a naïve way) defined as intentional behaviours that depart from the norms of a referent group in honourable ways (Spreitzer and Sonenshein, 2004). End users with this reason for conducting MB may have positive intentions such as believing that they are saving money by buying a low-priced product from an unapproved supplier, failing, however, to see the impact of such a purchase on the TCO for the organisation. Maverick buying to get better terms and conditions may as well, however, be caused by employees trying to optimize the utility derived from the purchase for themselves or their unit, knowing that it reduces the utility for the organization as a whole. Private interest looms larger than corporate good, as suggested by Lonsdale and Watson (2005).

### ***Maverick Buying to Maintain a Previous Supplier Relationship***

There are advantages in building up long term business relationships with a supplier, such as the supplier being better able to oblige, maintain standards, assist with problems and devote resources to the servicing aspect of supply (Bubb and van Rest, 1973). According to Puto et al. (1985), previous researchers in industrial purchasing have long noted the tendency among buyers to remain loyal to existing sources. Previous studies of technological products, such as computer equipment, have shown that organizational buyers frequently purchase such products from existing vendors, who may have provided an earlier version of the product in question (Heide and Weiss, 1995). Kulp et al. (2009) also noted that motivating employees to create new relationships was a difficult barrier to

compliance, e.g. employees who travel frequently may fall into the habit of staying in the same hotel. In their case study, situations in which employees want to maintain relationships with unapproved suppliers accounted for over 17 percent of noncompliance in the lab-supply category and less than 15 percent of noncompliance in the hotel category. Karjalainen et al. (2009) also found arguments supporting the involvement of local suppliers as reasons to maintain existing relationships among governmental buyers. The desire to stick with existing supplier relationships has also been identified as a major barrier to e-procurement adoption and compliance (Arbin, 2008).

### ***Maverick Buying Due to Unawareness of Frame Agreements in Existence***

Maverick buying due to employees not being aware of the contracts and processes in place which they are supposed to use in their daily ordering tasks has been identified as potentially the most often occurring type of MB in previous literature. Karjalainen et al. (2009) refer to this as unintentional MB. Kulp et al. (2006) reported that lack of information was one of the primary drivers of noncompliance at the case company in their research: It accounted for approximately 33 percent of noncompliance in lab supplies and 50 percent in hotels. Lack of awareness regarding either the correct purchasing processes or the contracts in use were among the most often mentioned explanations for MB also in the interviews conducted by Karjalainen et al. (2009) among buyers in the Finnish government. This type of MB is generally not seen as a problem for direct materials where thoroughly documented, rigorous procedures and policies, a small supply base, and regulated materials and services exist (Kulp et al., 2006). Communication of company policies and contract details is difficult for indirect materials and services which are purchased by numerous individuals within an organization, making this a common cause of internal non-compliance. In a typical organization, most employees are allowed and even tasked of making the purchases related to their corporate travel, IT equipment etc. Even products that are not ordered by each individual separately, e.g. office supplies and printing services, are typically ordered by each department and possibly several people within a department are given the ordering rights. According to Cuganesan and Lee (2006), these problems are also noted by the suppliers of indirect goods and services, who see the insignificance ascribed to indirect spend being translated into a lack of discipline in procurement processes with casual users, minimal procurement skills and lack of structures.

## **CONTRIBUTING FACTORS TO DIFFERENT FORMS OF MAVERICK BUYING**

### ***Factors Related to the Individual***

Appelbaum and Shapiro (2006) suggest that demographic factors, specifically gender, tenure, education and age affect ethical behaviour in an organization. Also D'Arcy and Hovav (2009) point out that existing research from social psychology supports that variables such as age and gender have been shown to influence projected deviant behaviour. They point out to e.g. empirical results that have shown that younger, male employees are more likely to engage in deviant workplace behaviour as well as perform numerous unethical behaviours involving the use of computers. Caniels and Van Raaij (2009) also relate tenure to willingness to adapt to changes and new tools in the purchasing environment. In their study on electronic reverse auctions, Caniels and Van Raaij (2009) suggest that experienced managers, who tend to be older and have had longer careers, are expected to show more resistance to this electronic reverse auction tools as it requires them to change their skill set. Kulp et al. (2006) specifically relate inertia to maverick buying due to unawareness of contracts in place. As previous literature on deviant organizational behaviours suggests that individual characteristics may influence engaging in such behaviours, respondents' age and tenure are tested as potential explanatory factors for engaging in the three specified types of maverick buying. Specifically, it is expected that those engaging in maverick buying due to unawareness of frame agreements in existence are those with a longer tenure. This is because employees with a longer tenure in an organization are more likely to have grown accustomed to a certain way of handling the daily operative purchasing routines and are less willing and ready to stay attuned to possible changes in organizational practices. Additionally, those who engage in maverick buying to maintain a previous supplier relationship are potentially those with a longer tenure in the organization and/or higher age as they have had a longer time to settle into established supply relationships.

### ***Factors Related to the User's Task***

Task autonomy. In previous literature on the topic, the most frequently mentioned remedy for maverick buying is the implementation of electronic procurement (e.g., Cuganesan & Lee, 2006). Purchasing cards are another suggestion for reducing MB (Karjalainen et al., 2009). When deviating from pre-negotiated contracts and preferred policies is "technically" difficult, compliance

will be higher. In the purchasing context, several factors other than simply the implementation of an e-procurement solution can contribute to this type of reduced task autonomy. Heide and Weiss (1995) define a high degree of buying process formalization as the tasks in question being subject to fixed rules and procedures. Heide and Weiss (1995) argue that as such rules exist, they provide the buyers with a set of decision precedents that constrain information acquisition and utilization: buying process formalization creates a disincentive to expend effort in the buying process which will manifest itself in the form of a tendency to employ a closed consideration set and rely on existing vendors rather than switching to new ones. Thus, the creation of a standard format for purchasing behaviour and a highly detailed and specified system for conducting the daily ordering practices, whether through e-systems or other documentation and procedures, in an organization will make employees less likely to engage in maverick buying. Specifically, if the procedure on how to order is very much tied to the contracts in place, employees involved in operative ordering most likely will be aware of contracts they are supposed to use. Little task autonomy in purchasing procedures should also make it more difficult to continue to buy from previous suppliers not included in the current contracts.

#### ***Factors Related to the User's Organizational Unit***

Reward and sanction system. When management implements a control, they send a signal that compliance is expected by individuals in the organization (Boss et al. 2009). Yet, if management never or hardly ever evaluates compliance, the policies in question will most likely be disregarded by employees (Boss et al. 2009). In other words, the likelihood of noncompliant behaviour going undetected and/or unsanctioned affects the likelihood of compliance. Boss et al. (2009) posit that rewards signal to the individual that a control is mandatory. According to Eisenhardt (1985) and Kirsch (1997), control theory ties rewards to individual behaviour, i.e. compliance with the expected behaviours will bring rewards to the individuals. The reward element of control is that individuals are rewarded based on their behaving as expected or meeting a target outcome (Boss et al. 2009). Straub and Welke (1998) point out that even if policies are stated, data gathered and individuals evaluated, but there remains no reward for either compliance, nor a disincentive for non-compliance, people will soon decide that the policy is unimportant and not mandatory and behave accordingly. Kulp et al. (2006) also argue that companies must ensure that employees throughout the organization are motivated by internal incentives to comply with global procurement contracting. Specifically, in the case of maverick buying, it would be likely that if employees know that compliance is tracked

and there is a risk of being caught when purchasing outside contracts, and there are personal financial or performance review associated rewards and/or penalties associated with noncompliance, employees would be more likely to use the central frame agreement. The existence of these types of reward and sanction systems would specifically be expected to be related to low levels of maverick buying in order to maintain an existing supplier relationship or to get better terms and conditions, as employees would then place greater value on compliance than either of these two goals. On the other hand, existence and emphasis of such systems would make employees less likely to not be aware of contracts they are expected to use.

Compliance climate. Organizational factors such as organizational climate have been emphasized as contributing to employee behaviours (Vardi, 2001; Wimbush & Shepard, 1994). Researchers have determined that the ethical climate of an organization is a good predictor of unethical behaviour (Appelbaum and Shapiro, 2006). The ethical climate refers to the shared perceptions of what is ethically correct behaviour and how ethical issues should be handled (Appelbaum and Shapiro, 2006). Husted (2007) puts forward that corporate culture and normative control may provide effective constraints on self-interest seeking behaviour by agents. Research in psychology and sociology stresses the importance of peers' opinions and peers' pressure in affecting behaviour (Gelderman et al. 2006). Drawing from the above mentioned literature, it can be assumed that climate of compliance toward centrally imposed organizational rules and practices, and rules and practices in general, may impact employees' own compliance to such rules. Boss et al. (2009) propose a concept of mandatoriness, which they define as the degree to which individuals perceive that compliance with existing security policies and procedures is compulsory or expected by organizational management. Specifically, those employees who are in a climate where compliance to organizational rules and practices is generally encouraged and regarded highly would be less likely to engage in maverick buying to maintain an established supplier relationship or to get better terms as they would value being compliant over supplier relations and contract terms.

Specialisation. According to Lonsdale and Watson (2005), a contributor to different and conflicting preferences in purchasing is functional culture as organizations are divided into functional sub-units. They suggest that managers within these functions are often specialists with formal training and professional qualifications in

their respective fields. Functional departments tend to have their own cultures which contain general assumptions about the operation of the organization and what is required to make it successful (Lonsdale and Watson, 2005). The impact of functional culture will often be further entrenched by functionally based professional training (Lonsdale and Watson, 2005). Internal clients interpret purchases through the prism of their functional values (Lonsdale and Watson, 2005), which may cause them to have different preferences for the contract terms and conditions and the products and services being bought. In other words, the more specialized the unit and its personnel are in terms of the operations they conduct, compared to other units in the organization or to the mainstream, the more likely they are to have specific requests also related to purchasing operations and standard frame agreement solutions are less likely to satisfy these. Arbin (2008) noticed similar behavior in relation to e-procurement adoption: people who were used to taking their own initiatives and following them through, deciding for themselves and were part of a decentralized organizational culture were reluctant to conform to a purchasing system that dictated how to operate. It is thus presumable that individuals working in highly specialized units are those more likely to engage in maverick buying to get terms and conditions more suitable for themselves. Specialization may also impact engaging in maverick buying to maintain old supplier relationships as well as cause people not to be aware of the contracts in place. Specialized units may have established relationships with suppliers that fit the needs of their operating environment. Employees in a unit used to rather independent operations of the other organizational units may also not be as well informed about purchasing centralization efforts in place.

#### ***Factors Related to the Purchasing Support Provided to the User***

General purchasing training. It is suggested, that educating employees about total cost of ownership would increase contract compliance (Karjalainen et al. 2009). Angeles and Nath (2007) tie purchasing compliance to users being better educated on how compliance can help achieve corporate cost savings targets. When employees have a clearer view on why central frame agreements are used and they are more educated in purchasing in general, they are more likely to see the benefits of complying, and the consequences of not complying. Specifically in the public procurement context, understanding of the laws governing the purchasing processes can also be of importance in conveying to employees why compliance with existing frame agreements instead of buying off contract is cost efficient – and even required by law in some cases. Gelderman et al. (2006) suggest that the degree to which a public agency is familiar

with the essence of the EU rules, can function as an organizational incentive to comply with such rules: lack of clarity is believed to increase the possibilities for (un)deliberate non-compliance. It would be expected that employees who engage in maverick buying to maintain a previous supplier relationship or because they perceive they have managed to attain better terms and conditions would not have such a good “big picture” view on what purchasing is and how it is conducted effectively in general (e.g. the concept of TCO) nor a good view on the purchasing context in which their organization operates (e.g. EU directives on public procurement) as those who refrain from engaging in MB for said reasons.

Training on purchasing practices in use. Earlier in the paper it was suggested that making the ordering tasks highly pre-programmed will make employees less likely to engage in maverick buying. In previous literature on the implementation of different new procurement systems such as e-procurement tools and purchasing cards it has, however, been suggested that user training is needed to accompany the implementation to ensure high levels of compliance. Croom and Brandon-Jones (2007) see support provision as a new box in the e-procurement effects model influencing compliance with the system. Croom and Brandon-Jones (2007) refer to such examples of support provision as a specialist training unit to support users in the procurement system roll-out and departments holding regular seminars for users. In the context of P-Cards, user training is suggested as a mechanism for improving implementation; as well as new software systems need employee orientation, basic knowledge of the P-Card is the first requirement for its successful implementation (Roy, 2003). Roy (2003) specifically refers to orientation type training for P-Card users as having been recommended for the effective use of such a system. Training on the proper use of the systems and procedures in place is thus expected to reduce maverick buying. When employees are fully aware of how the contracts and the ordering systems built around them function and perceive them as easy to use, they are less likely to search the convenience of a previous established supplier relationship. When training on the preferred purchasing processes is offered extensively throughout the organization, employees are also more likely to become more aware of the preferred purchasing practice and not engage in maverick buying because they “did not know better”.

Communication and involvement. Kulp et al. (2006) suggest that simply providing lots of information on the contracts in place is not enough to ensure compliance. An important critical success factor

recognized in change management literature is the involvement of people in the change process (Reunis et al. 2004) Communicating in order to clarify the change process and what is about to come is suggested to e.g. influence the adoption of an e-ordering system (Arbin, 2008). According to Reunis et al. (2004), the increased feeling of ownership creates adoption behaviour. Roy (2003) refers to situated learning, where corporate buyers and users have ongoing interactions to enable solution of problems and transfer of knowledge to enhance compliance. Croom and Johnston (2003) highlight the importance of supporting communication, especially in organizations with multiple sites and those with a fragmented user base. Specifically, including end-users in the purchasing processes during the making of the contracts will make them more likely to use them, as they feel they have had an influence in the process and e.g. supplier selection. Thus, employees are less likely to feel they need to engage in MB to get better terms and conditions, when they feel they have had influence on the frame agreement terms and conditions. They are also more likely to be aware of the contracts to be used.

## **EMPIRICAL TESTING**

The data was collected with a large scale survey among employees of the Finnish government engaged in operative purchasing and ordering of selected product categories. The Finnish government has moved to a centralized purchasing system where a central purchasing agency tenders frame agreements for the whole government on product and service categories that are used by all or most government units. These units range from ministries to military bases and universities. The frame agreements for different categories have been in place on average between 2 to 7 years already. The estimated usage rates for the different frame agreements have, however, only been ranging between 20% and 80% of the total estimated purchasing volumes of all the units combined.

The product categories selected for empirical testing in this paper are those prone to maverick buying (cf. Kulp et al. 2006, Cuganesan and Lee, 2006): IT equipment, office supplies, cleaning services, mobile phones, printing services and domestic hotel services. Discussions with personnel of the central purchasing unit also brought out these specific categories as suffering from low compliance. The data analysis will be conducted on a data set covering responses of individuals buying all the different product categories.

The sample for the survey was based on contact lists given by the central purchasing unit of people involved in purchasing the selected

categories. Elements and guidelines of the Tailored Design Method (Dillman, 2007) were followed in designing the survey procedure. The questionnaire was developed in English and subsequently translated into Finnish by two translators working independently. The two translation versions were compared and possible differences in the translations were discussed before the wording was finalized. The Finnish version of the questionnaire was reviewed by three academics and six government employees before the survey being sent. Comments from the reviewers led to improvements in question wordings and instructions, but not to any structural changes in the survey itself.

The total sample size for the survey was 2923 employees. The sample was divided into three parts, and the survey was sent in three separate rounds. All survey rounds took place between November 2008 and March 2009. The following description of how the survey was administered applies to all three survey rounds. First, a pre-notification of the survey was sent to the respondents by the Ministry of Finance, the Ministry responsible for the strategy of government purchasing. In the pre-notification letter it was explained that as the move towards using centralized frame agreements has created a lot of discussion on how the government should organize its purchasing, the Finnish government would like to learn from the people in the units doing the operative day-to-day purchasing their perceptions of the centralized frame agreements. The actual survey invitation with a link to the Web-based questionnaire was sent out by the research team. Two reminders were sent out to the respondents during the three weeks the survey was open for responses.

The survey was anonymous; respondents were not asked their name, position or their unit. This was done to reduce the threat of socially desirability bias and to ensure truthful answers regarding maverick buying as it is considered an undesirable behaviour from the Finnish government's point of view. Some invitations did not reach the respondents due to mistakes in email addresses given or due to the employees having left their position. In addition, some respondents informed the research team that they were no longer (or had never been) involved in purchasing the product categories the survey was dealing with. These respondents were removed from the sample, and the adjusted sample size became 2508 employees. In total, 610 completed responses were received to the survey, giving a response rate of 24.3%. Phone calls were made to non-respondents to determine the reasons for not responding to the survey. The majority of those contacted stated they had not replied because they were not responsible for buying the categories the survey was targeted to, indicating that they were in fact not part of the targeted sample.

Each respondent completed the survey for one of the five specified categories and were asked whether they had made purchases in that category during the past 12 months. For the data analysis for this paper, those respondents who had not conducted purchases during the past 12 months were removed. This was done to ensure that the details of the purchase and the possible reason for maverick buying would still be fresh in the memory of the respondent. The final analyses were conducted with 247 responses after responses with missing values on the key factors had been eliminated.

### *Data Analysis*

The operationalization of the constructs as well as the construct measures are in Appendix 1. Correlations between the constructs are reported in Appendix 2. As a construct reliability test, Cronbach's alphas were calculated for all the constructs. These are also reported in Appendix 1. For most of the constructs, a 7-point Likert scale was adopted. For the two constructs on training, however, the scale adopted was a 6-point one, containing answers representing the respondent's perception of the adequacy of training received. No neutral midpoint-answer was provided here as the question was not on agreement-disagreement but on the respondents' perceptions on how sufficient the training received had been. In addition to the constructs in Appendix 1, the respondents were asked a yes/no question on whether they had engaged in MB in their selected product category for any of the three reasons presented in the literature review section. The respondents could answer yes to more than one of the reasons, if several were applicable in their situation.

One-way ANOVA (analysis of variance) was used as the method to analyze the data. First, however, the Levene test of homogeneity of variance was ran to test that the assumptions for ANOVA are not violated. For two out of the 27 instances tested, the assumption was violated. We then ran t-tests for those two instances and the results remained the same. Thus, we present only the ANOVA results in Table 1.

Table 1: Anova results

Variable	"not aware"				"better terms"				"previous relationship"			
	Sig.	Mean	St.dev		Sig.	Mean	St.dev		Sig.	Mean	St.dev	
Age	Yes n=42		51.93	6.88	Yes n=62		49.855	7.88	Yes n=52		49.81	8.71
	No n=169	0.03	48.78	8.49	No n=146	0.51	49.024	8.44	No n=160	0.66	49.22	8.10
Tenure	Yes n=49		21.39	10.27	Yes n=65		21.06	10.91	Yes n=60		19.92	11.07
	No n=180	0.29	19.61	10.40	No n=162	0.35	19.642	10.18	No n=172	0.88	20.15	10.14
Task autonomy (R)	Yes n=49		4.061	1.47	Yes n=69		4.3671	1.52	Yes n=63		4.153	1.42
	No n=191	0.000	4.941	1.34	No n=169	0.006	4.9231	1.36	No n=180	0.000	4.985	1.36
Reward and sanction system	Yes n=49		3.119	1.47	Yes n=69		3.2874	1.44	Yes n=36		3.164	1.38
	No n=191	0.48	3.282	1.44	No n=169	0.79	3.2308	1.46	No n=180	0.55	3.293	1.49
Compliance climate	Yes n=49		4.95	1.19	Yes n=69		5.16	1.30	Yes n=63		5.05	1.21
	No n=191	0.26	5.173	1.25	No n=169	0.81	5.1124	1.22	No n=180	0.53	5.167	1.25
Specialization	Yes n=49		5.15	1.28	Yes n=69		5.058	1.16	Yes n=63		5.063	1.15
	No n=191	0.426	4.995	1.19	No n=169	0.774	5.0079	1.24	No n=180	0.664	4.985	1.26
General purchasing training	Yes n=49		2.565	1.38	Yes n=69		2.9662	1.30	Yes n=63		2.698	1.26
	No n=191	0.001	3.264	1.24	No n=169	0.22	3.1953	1.29	No n=180	0.002	3.276	1.29
Training on purchasing practices in use	Yes n=49		2.19	1.06	Yes n=69		2.78	1.32	Yes n=63		2.45	1.16
	No n=191	0.000	3.03	1.32	No n=169	0.46	2.9142	1.30	No n=180	0.003	3.021	1.33
Communication and involvement	Yes n=49		3.641	1.46	Yes n=69		3.6232	1.33	Yes n=63		3.721	1.31
	No n=191	0.15	3.934	1.19	No n=169	0.03	4.0059	1.22	No n=180	0.2	3.957	1.24

(R) = Reverse coded

The results show several statistically significant differences between those engaging in maverick buying for a certain reason and those not, for all three different reasons. In the following, the results presented in Table 1 are briefly presented. More discussion on the results, also in light of findings in previous literature, is presented in the next section of the paper.

Age was found to impact only one of the three reasons for maverick buying. Those who engaged in maverick buying due to not having been aware that a contract existed in the product category in question tended to be slightly older.

Tenure of the respondent does not appear to have a statistically significant effect; those engaging in any of the three types of maverick buying do not have significantly longer or shorter tenures than those that do not engage in the same type of behaviours. Task autonomy was related to all three reasons for MB. Those with less task autonomy in their purchasing procedures do not engage in the different types of MB as much as those with high task autonomy.

Reward and sanction systems, compliance climate, nor specialization of the respondents' unit were not found to be related to any of the MB reasons. Those who engage in maverick buying because they want to maintain previous supplier relationships and those who engage in maverick buying because they were not aware of the contracts in place are the respondents who feel they have not had sufficient training neither on general aspects of purchasing nor on purchasing practices in use by the organization. Communication and involvement with the central purchasing unit appears to be related to maverick buying in order to get better terms and conditions: those who engage in this type of maverick buying feel that they have had less communication and involvement than those who do not engage in maverick buying due to this reason.

## **DISCUSSION AND CONCLUSIONS**

In this paper, we set out to unravel the concept of maverick buying (MB) and relate different reasons for MB to context variables of those who engage in it. Several factors related to the organizational context of end users were indeed found to affect different types of MB. Specifically, those who engage in maverick buying due to not being aware of contracts in place differed from those who do not by several factors: they were slightly younger, they had more autonomy in their purchasing procedures, they had received less training on purchasing in general and in the purchasing practices in use in their organization. Effective training on different aspects of purchasing thus helps not only promote purchasing skills but employee awareness on how purchasing is to be conducted in the organization.

The respondents who engage in maverick buying to get better terms and conditions than in the frame agreements differ from those who report not to engage in MB in that they have more task autonomy in their purchasing procedures and have had less communication and involvement with the central purchasing unit. In previous literature, it has been suggested that participation increases the likelihood employee will find that their motives are satisfied (Dickson, 1981). Dickson (1981) argues that interaction and communication may beneficially affect participants' understanding of the issues and the corresponding decisions that need to be taken: process participation may increase commitment to the decision itself. Our results suggest that employees who have been more involved in the process of putting frame agreements in place are more convinced that the terms and conditions of the agreements satisfy their purchasing needs. A somewhat surprising result was that those engaging in this type of MB did not differ by the training they had received. We expected that less purchasing training would have made employees less likely to

see the adverse TCO impact on the organization of attempting to find better terms and conditions from a local perspective. It is possible that MB in search for better terms and conditions is ultimately not derived from organizational and contextual factors of the end-users but of factors related to the contract specifically. This is something to be addressed in future research.

Those who engage in maverick buying because of a desire to maintain an existing relationship with a non-contracted supplier are also those with more task autonomy, and/or those who have received less training on purchasing in general and in the purchasing practices in use in their organization.

All in all, reduced task autonomy seems to be the most effective contextual variable against all the three types of maverick buying. This is in line with Jermier (1983), who suggests that structured decision premises help standardize and coordinate work. Dickson (1981), too, points to structuring of activities as effective in organizational control.

Respondents engaging in any of the different types of MB were not found to be significantly different in tenure, and in two of the three types in age, than those who did not engage in these types of MB. While some previous studies have found age to be related to deviant work behaviours, our finding is in line with other studies on organizational misconduct, where organizational factors but not personal characteristics were significant antecedents of misconduct (Andreoli and Lefkowitz, 2009). Henle et al. (2005) also found no relationship between tenure and self-report measures of organizational deviance.

Perceptions of reward and sanction systems were found not to be related to MB reasons. Monetary and performance review punishments nor benefits thus seem to have little effect in curbing MB. This is in accordance with results by Arbin (2008), who found no evidence of enforcement influencing end-user adoption and use of e-procurement. Also Jermier (1983) argues that supervisory behaviour, especially in the form of negative feedback is in itself not enough to ensure employee compliance, and argues that in organizational control literature more attention should be put on the organizational contexts and structure. The above mentioned results on task autonomy support this view.

Respondents engaging in any of the different types of MB were not found to be significantly different based on the compliance climate in their organizational unit. Vidaver-Cohen (1998) has argued that moral climate does not directly affect behaviour but that it provides a context in which certain behaviours are likely to occur if other supportive individual and contextual conditions also exist. Thus,

those engaging in MB for different reasons do not differ specifically on compliance climates, but interplay between this construct and others may be in place. Future research should thus focus on the interplay of various factors in affecting MB, such as on interaction effects between (compliance) climate and other individual and contextual factors.

A limitation of the study is the potential social desirability bias, some respondents may not have been completely forthcoming with their self-reported engagement in maverick buying. Moreover, it is possible that respondents have overstated unawareness of frame agreements as a reason for MB, as it is easy for end users to claim this, and difficult for the organization to verify it.

The results of this paper have managerial implications related to how different types of maverick buying in an organization can be reduced. Firstly, it would seem that by reducing the autonomy of the purchasing task and making buying via the specified contracts highly programmed, all three types of maverick buying tested for in this paper can be reduced. For managers, this means for example investing in systems that do not allow deviations from set prices, products and suppliers during the purchasing process, providing clear and unambiguous guidelines on purchasing procedures via such channels that all end users come in contact with them and clearly specifying how much individual decision making authority with regard to e.g. supplier or product selection is allowed for the end users. This is possibly something that public organizations for example need to address at a more strategic policy level on procurement; how much freedom are individual agencies and users allowed in procurement practices. Based on our findings, only two of the three types of MB are related to (a perceived lack of) training. Still, training on purchasing in general (e.g. the concept of TCO or in the case of public procurement, the laws governing the entire context) and on the purchasing procedures, systems and contracts in place is effective and should be considered in general as part of the purchasing strategy, as it can naturally provide other benefits than just reduction of certain MB types. The results show that a reward and sanction system was not helpful in reducing any of the types of MB tested. It may be that this is the instance specifically in the public procurement context where the study was conducted. Public organizations do not have such bonus systems in place as private organizations may have given their financial and operating structures. As a result of this, the range of rewards available may not be perceived as a strong enough motivator to impact MB behaviour of employees. It may be that replication of the study in a private organization where monetary reward systems are in place, would give different results regarding this factor. But for public

organizations, this simply means that other governance mechanisms are needed instead to tackle maverick buying. Age was found to impact maverick buying behaviour due to contract unawareness, older people were more inclined to engage in it. Naturally, there is nothing organizations can directly do to impact this. A key issue is perhaps that as older people retire and new workforce is brought in, they are oriented to the correct purchasing practices by e.g. the central purchasing unit and not only by their predecessor who has not been aware of all existing purchasing policies and contracts. All in all, based on the results of this study, managers should rather invest in training, and to some extent different types of communication and involving end-users, rather than on reward and sanction systems to improve compliance.

For future research, it is suggested that empirical research on the topic would include also other types of maverick buying identified in literature (see e.g. Karjalainen et al. 2009 or Kulp et al. 2006), as well as other types of organizations, specifically from the private sector, and in organizations in other countries.

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## APPENDIX 1: Construct items and their Cronbach's alphas

<i>Construct and items</i>	<i>Scale</i>	<i>Cronbach's alpha</i>
Age	N/A	N/A
Tenure: Number of years you have been employed by the Finnish government	N/A	N/A
Task Autonomy (R):	(7-point, strongly disagree ? strongly agree)	
1. Standard operating procedures have been established for ordering [product category]		
2. Our unit has documented work processes for ordering [product category]		0.684
3. My responsibilities with respect to ordering [product category] are clearly defined		
Reward and sanction system:		
1. I believe the risk of not using centrally negotiated frame agreements being detected is large		
2. Not using centrally negotiated frame agreements is something which could negatively influence my performance evaluation		
3. I believe my organization would discipline me for not using centrally negotiated frame agreements	(7-point, strongly disagree ? strongly agree)	
4. If I was caught buying outside frame agreements, I think I would not be reimbursed for the invoice		0.888
5. If I was caught buying outside frame agreements, I think I would be given a verbal warning		
6. Using centrally negotiated frame agreements is something which could positively influence my performance evaluation		
Specialization		
1. Our unit has a high level of specialized knowledge that other units in the Finnish government do not have	(7-point, strongly disagree ? strongly agree)	
2. We execute our tasks relatively autonomously from other units in the Finnish government		0.670
3. Our unit is very different and unique compared to other units in the Finnish government		
Compliance climate		
1. My unit strictly enforces rules and procedures.	(7-point, strongly disagree ? strongly agree)	
2. My unit actively supports rules imposed by the central government.		0.869
3. Top management in my unit has made absolutely clear that deviation from rules and procedures will not be tolerated.		
4. There is a strong emphasis in this unit to play by the rules.		
General purchasing training	(6-point, far below sufficient ? more than sufficient)	
1. Training related to purchasing in general		0.955
2. Training related to law on public procurement		
3. Training related to the public tendering process		
Training on purchasing practices in use	(6-point, far below sufficient ? more than sufficient)	
1. Training related to purchasing policies and objectives regarding [product category]		0.967
2. Training related to contracts in use in [product category]		
3. Training related to purchasing procedures in [product category]		
4. Training related to purchasing systems in [product category]		
Communication and involvement		
1. Our unit and [central purchasing unit] make it a point to keep each other well informed		
2. We are quite involved in the frame agreement tendering efforts of [central purchasing unit]	(7-point, strongly disagree ? strongly agree)	
3. [central purchasing unit] seeks our advice and counsel concerning their tendering efforts		0.793
4. [central purchasing unit] is available when I have questions about purchasing policies and frame agreements		
5. [central purchasing unit] makes an effort to keep me informed about purchasing policies and frame agreements		

(R) = reverse coded

APPENDIX 2: Correlations between items

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. MB "better terms"											
2. MB "unaware"	0.08										
3. MB "previous relationship"	0.40**	0.10									
4. Tenure	-0.06	-0.07	0.01								
5. Age	-0.05	-0.15*	-0.03	0.46**							
6. Communication and involvement	0.14*	0.09	0.08	0.06	-0.02						
7. Specialization	-0.02	-0.05	-0.03	0.01	0.13*	0.00					
8. General purchasing training	0.08	0.22**	0.19**	0.02	-0.07	0.28**	0.08				
9. Training on purchasing practices	0.05	0.26**	0.19*	0.03	-0.07	0.32**	0.01	0.70**			
10. Task autonomy	0.18**	0.25**	0.26**	-0.01	-0.02	0.27**	0.07	0.47**	0.55**		
11. Reward and sanction system	-0.02	0.05	0.04	0.02	-0.03	0.20**	0.01	0.04	0.10*	0.11*	
12. Compliance climate	-0.02	0.07	0.04	0.02	0.01	0.20**	0.08	0.16**	0.12*4	0.24**	0.22*

\*\* . Correlation is significant at the 0.01 level

\* . Correlation is significant at the 0.05 level