Supplier Resource Allocation Decisions. The Role of Supplier Dependence and Market Uncertainty.

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Abstract:

Buyers always try to obtain the best supplier resources possible. To be able to do this purchasers need to understand what influences supplier resource allocation decisions of physical and innovation resources. Many factors can affect these decisions, with this research focussing on the role of supplier dependence and market uncertainty and a possible interplay between these variables. Supplier dependence has been identified as a factor that will increase the amount of resources a supplier will allocate, however, there are also indications that supplier dependence can harm buyer-supplier relationships. It is generally accepted that market uncertainty harms buyer-supplier relationships, but it is unclear if it also affects supplier resource allocation decisions. To test these effects a mixed-method approach is taken. A policy-capturing experiment has been performed, testing the hypotheses and providing support for the positive effect of supplier dependence and a negative effect of market uncertainty on supplier resource allocation decisions was discovered. Both variables have significant effects but there does not seem to be an interaction effect. In a secondary study interviews were conducted to put these findings into context, providing explanations and discussing ideas on how to deal with supplier dependence and market uncertainty. This study helps to clarify the ambiguous effect of supplier dependence on buyer-supplier relationships and more specifically on resource allocation. Finally, this study enhances the literature about market uncertainty by providing empirical evidence that it is harder to obtain supplier resources in uncertain markets compared to more stable markets.

Keywords: supplier resource allocation decisions; supplier dependence; market uncertainty; buyer-supplier relationships

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1. Introduction

The same supplier can have different performance levels for different customers because of the characteristics of each relationship (Dyer & Hatch, 2006). If a firm can improve the relationship with a supplier correctly, higher levels of performance from that specific supplier may be obtained which can lead to the buyer gaining a competitive advantage (Li, Humphreys, Yeung & Cheng, 2012). One way to get these competitive advantages is by obtaining preferential resource allocation compared to other buyers of this supplier (Pulles, Veldman & Schiele, 2016). In the factor market firms are not just competing against direct competitors, but also against firms that use similar resources for different purposes (Ellram, Tate & Feitzinger, 2013). Therefore, it can be hard for a buyer to see how a supplier allocates resources towards all these different potential competitors (Handley & Benton, 2012). Because of this, it is of high value to know which actions can be taken to obtain better supplier resources than competitors (Pulles, Schiele, Veldman & Hüttinger, 2016). It is important for a buyer that a supplier has incentives to see the buyer as a preferred customer because suppliers will give preferential treatment to these customers (Pulles, Ellegaard, Schiele & Kragh, 2019; Vos, Schiele & Hüttinger, 2016).

There has already been quite some research into supplier resource allocation. Some examples of explored influences on supplier resource allocation are knowing when to use certain dimensions of power and trust to obtain desired resources from suppliers (Pulles, Veldman, Schiele & Sierksma, 2014). Furthermore, Pulles et al. (2016a) identify the role of indirect capabilities such as selection and relational capabilities in being able to get into a better resource allocation position than competitors. Supplier dependence and supplier-specific investment have also been identified as factors that can positively influence supplier resource allocation, however in combination with each other the positive effect decreases (Pulles, Ellegaard & Veldman, 2023). Since many variables can influence supplier resource allocation it is not always clear what the best path is to obtain the best supplier resources. Therefore it is interesting to do more research on this topic. This study further explores the role of supplier dependence and market uncertainty regarding supplier resource allocation.

Supplier dependence refers to a situation where a supplier relies on a specific buyer to obtain a significantly large part of financial resources and therefore the ability to exist (Elking, Paraskevas, Grimm, Corsi & Steven, 2017). Research has argued that supplier dependence leads to more resources being allocated to a specific buyer because the supplier relies on that specific buyer and wants to make sure that the buyer stays in the relationship and does this by allocating resources to this buyer (Pulles et al., 2023). Reasons for this could be that even though it is currently not the ideal situation, over a longer term there might be positive spillover effects in either that relationship or other relationships because of which value created over a longer period might be enhanced (Kang, Mahoney & Tan, 2009). However, looking at past research it is also argued that power imbalances are not good for relationships, decreasing the chances of successful collaboration (Casciaro & Piskorski, 2005). That might indicate that suppliers want to look elsewhere to allocate resources rather than working more closely together with powerful buyers. This for example shows in the fact that that dependent suppliers will often be less committed to the relationship (Kim & Zhu, 2018). Because of these mixed indications and findings, it is important to get a better understanding of the role of supplier dependence on supplier resource allocation decisions and get a clearer understanding of how supplier dependence can influence the market position of a buyer.

When a market is uncertain it is hard to predict the future supply-demand situation and unexpected large changes might occur which can lead to risks (Wathne & Heide, 2004). This market uncertainty can play an important role in determining how firms behave in interorganisational relationships (Howard, Withers, Carnes & Hillman, 2016). In studies over different periods, differing effects of market

uncertainty on organisational behaviour have been found. Beckman, Haunschild & Phillips (2004) found that market uncertainty leads to more cooperation with existing business partners which could indicate more resource allocation than in a market with lower uncertainty. In a very similar study over a longer period, Howard et al. (2016) opposingly found that high market uncertainty would be a reason for firms to broaden networks and find new business partners. So, market uncertainty is a variable that can determine how firms treat each other and can thus have influence on how supplier resources are allocated. However, it is unclear which way the influence of market uncertainty on supplier resource allocation will go based on the differing indications in existing literature.

To be as competitive as possible buying firms must know which actions can be taken to obtain the best supplier resources possible. Apart from knowing which actions to take it is also important for a buying firm to know how factors such as supplier dependence and market uncertainty will influence how resources will be allocated to the buying firm. As discussed the effects of market uncertainty and supplier dependence on supplier resource allocation are not exactly clear and therefore warrant further research. Therefore, in this study focus will be on the relationship between supplier dependence and market uncertainty on supplier resource allocation. This leads to the following research question: “How do supplier dependence and market uncertainty influence supplier resource allocation and do these interplay?”

To answer this question, first, a theoretical background about past research on these topics will be written, followed by hypothesis formulation. An experimental approach will be taken to test these hypotheses. Account managers will be requested to complete an experiment to test the hypotheses about resource allocation, followed by interviews with purchasers to get a better understanding of the experiment results and how purchasers experience this in real life. The results show a positive effect of supplier dependence and a negative effect of market uncertainty on supplier resource allocation. This study provides more clarity in the discussion about the influence of supplier dependence on supplier resource allocation by providing experimental evidence and interviews that offer reasons for dependent suppliers to allocate more resources. Similarly, this study strengthens the view that market uncertainty may harm buyer-supplier relationships and provides suggestions about how to mitigate possible negative effects of market uncertainty on supplier resource allocation.

2. Theoretical Background

2.1 Supplier Resource Allocation

Buyers engage in relationships with suppliers to obtain resources from these suppliers that will help the buyers move forward. There is a distinction between two different types of supplier resources: physical resources and innovation resources (Pulles et al., 2014). Physical resources are the physical items that are scarce due to production capacity restraints or raw material availability and therefore suppliers need to choose to which buyers the available amount of the resources will be allocated (Pulles et al., 2023). Innovation resources can be seen as how early a buyer gets access to the newest and best technology, information and people of a supplier and thus looks more at how much information about future business plans or innovations the supplier is willing to share or collaborate on with a specific buyer (Pulles et al., 2023). Being able to obtain better or more supplier resources than competitors is important because it can put firms at an advantage compared to these competitors (Pulles et al., 2016a). To establish this advantage, all buyers will try to obtain better resource allocation from suppliers than the competition. That means that it is important for buyers to know what drives supplier resource allocation decisions to be able to improve their position and obtain more resources.

First of all, it is important how a supplier sees a specific customer. Suppliers are more likely to give a customer preferential treatment, and thus more resource allocation, when the supplier is satisfied with that buyer (Piechota, Glas & Essig, 2021; Vos et al., 2016). Not just the opinion of the supplying firm about a buyer is relevant to preferential treatment, it is especially relevant how a buying firm compares to other business relations of that supplier (Piechota et al., 2021). This implies that the position of a firm compared to alternative buyers in the eyes of a supplier is an important factor in determining who gets priority. Influencing how a supplier sees other potential customers will be difficult, therefore buying firms should focus on improving own perceived quality for the supplier (Piechota et al., 2021). There are a lot of actions a buyer could take to do this, for example, a buyer could share relevant information, making it more likely the buyer becomes a preferred customer, increasing the chance of resource allocation towards the buyer (Ma et al., 2021). It is also possible to look at the power distribution in a relationship and the uncertainty that is present in a relationship. Skilled buyers will manoeuvre themselves to look more attractive to suppliers, increasing the chance of getting certain advantages such as preferential resource allocation (Tanskanen & Aminoff, 2015). As mentioned, it is not always clear which amount of supplier dependence and market uncertainty is actually giving advantages to buyers. Therefore more research about these topics regarding supplier resource allocation is valuable. Before a firm takes action to improve its position it is important to think about context and what other actions have been taken. Certain factors can generally and individually have a positive influence on supplier resource allocation, however, when combined with the presence or changes in other variables the positive effects might cancel out (Pulles et al., 2023). Therefore this study does not just focus on the individual effects of supplier dependence and market uncertainty but also considers the possible interplay between market uncertainty and supplier dependence regarding resource allocation.

In a previous study that looked at the direct effect of supplier dependence on resource allocation, Pulles et al. (2023) found a positive effect of supplier dependence on the allocation of physical and innovation resources. There are also indicators showing that supplier dependence does not always lead to more resource allocation. Casciaro & Piskorski (2005) argued that suppliers that are dependent on a few large buyers will try to reduce this dependence and ensure future existence this way, which could indicate that less resource allocation will happen if suppliers are more dependent. Furthermore, dependent suppliers often do not invest in innovations for the powerful buyer, since the relationship may be seen as more short-term (Kim, 2020). Looking at market uncertainty a study looking at the direct effect of market uncertainty on supplier resource allocation is still missing. Some studies focus on the influence of market uncertainty on business relations. Howard et al. (2016) found that in situations of high market uncertainty firms will look to broaden existing networks. This indicates that firms will try to find different business partners, which would mean there will be fewer resources available to allocate to firms that already have an existing relationship. Furthermore, there have been some studies that looked at resource allocation decisions or preferential treatment where market uncertainty was used as a variable in the model. Ma et al. (2021) found that ambiguity and riskiness, which are things that are present partially due to market uncertainty, have a negative influence on supplier trust, commitment and investment in innovation, indicating that market uncertainty can have negative effects on a business relationship. Additionally, market uncertainty can lead to less mutual trust when there already is fairness asymmetry, meaning suppliers might allocate fewer resources in cases of higher market uncertainty (Wang, Sheng & Zhao, 2022). This may indicate that in times of market uncertainty it might be harder to obtain supplier resources, but concluding evidence is missing.

2.2 Supplier Dependence

A supplier is dependent when that supplier relies on a specific buyer to earn a large share of financial revenues and relies on that supplier to exist (Elking et al., 2017). When a supplier is highly dependent on a buying firm, this buyer will have high levels of power in the relationship and this specific buyer might be hard to replace (Kim & Zhu, 2018; Chen, Zhao, Lewis & Squire, 2016). The fact that a certain firm has a lot of power over another firm does not mean that this power will necessarily be used (Huo, Min Tian, Tian & Zhang, 2019). A powerful focal firm that has a very dependent supplier will usually get greater financial performance out of the relationship than the supplier (Elking et al., 2017). Where past literature has generally accepted that supplier dependence leads to lower supplier satisfaction and therefore lower effort the supplier puts into a relationship, more recent work indicates that this is not necessarily the case (Caniëls, Vos, Schiele & Pulles, 2018). This can depend on how powerful buyers use this power (Huo et al., 2019). For example, the use of power in a non-coercive, rewarding way leads to supplier satisfaction, which is related to various positive outcomes for buyer-supplier relationships (Canïels et al., 2018).

Dependent suppliers perceive higher levels of ambiguity and risk in the relationship, because of which there will be less trust, commitment and investment in innovation from suppliers (Ma et al., 2021). To mitigate the negative influences that come with dependence, suppliers need to connect to important buyers and gain access to new knowledge (Kim & Zhu, 2018). By working closely together with large buyers a supplying firm might be able to earn more chances for positive spillover effects for later projects, expanding business and creating more value this way (Kang et al., 2009). By sharing information and expertise buyers can take away perceived uncertainty for dependent suppliers and incentivise the suppliers to innovate and share resources with the buyer (Ma et al., 2021; Chen et al., 2016). However, buyers with power often do not want to share a lot of knowledge with dependent suppliers because that could be a possible threat to the power position the buyer currently holds (Kim, 2020). When powerful buyers do not share such information with dependent suppliers, supplier R&D intensity becomes less (Kim & Zhu, 2018). This could bring the ideal situation back to one with interdependence, where the supplier still relies on a specific buyer for example because of absolute value created, but where the buyer trusts the supplier with crucial information leading to more effort put into the relationship by the supplier (Caniëls et al., 2018). Firms that have exemplary supply chains are found to be relatively less dependent on suppliers than suppliers of competitors (Schwieterman, Miller, Knemeyer & Croxton, 2020). This challenges traditional views that supplier dependence lead to better performance for buyers (Ravenscraft, 1983), but also recent studies that argue that supplier dependence increases the amount of resources supplier allocate (Pulles et al., 2023). That could be because suppliers that are heavily reliant on major customers are reluctant to make risky decisions and will maintain relationships with lower commitment hampering the ability to develop into better suppliers (Kim & Zhu, 2018). This reluctance of suppliers could also hamper the development of the buyer in the long run. So there is a lack of consensus on what the preferred level of supplier dependence is for obtaining the best firm performance and supplier resources.

When a supplier becomes more dependent, the supplier will perceive higher levels of uncertainty in a relationship (Ma et al., 2021; Casciaro & Piskorski, 2005). Supplier dependence is related to the use of power (Huo et al., 2019), which is related to resource allocation decisions by suppliers (Pulles et al., 2014). Pulles et al. (2014) show that buyers using coercive power might get more physical resources in the short term, but it might also hamper supplier resource allocation in the long run. When suppliers get pressured by powerful buyers this reduces the chance that suppliers will share more knowledge about innovation with a particular buyer (Chen et al., 2016). This might indicate that dependent suppliers might be looking towards other potential buyers to share knowledge or resources with. A powerful firm could reduce the uncertainty a supplier perceives, by sharing relevant information, leading to a healthier long-term relationship and weakening the effects of supplier dependence on

uncertainty (Ma et al., 2021; Huo et al., 2019). It can also be the other way around, that market uncertainty shifts certain levels of dependence between buyers and suppliers (Wang, Zhao & Gu, 2023). Therefore it is important to consider the possibility of interplay between supplier dependence and market uncertainty.

2.3 Market Uncertainty

Uncertainty plays a large role in determining how organisations behave in interorganisational relationships (Howard et al., 2016). However, little is known about how market uncertainty influences supplier resource allocation decisions. Uncertainty makes it difficult for a supplier to take actions that benefit both parties in a relationship (Ma et al., 2021). Market uncertainty refers to a situation in which it is hard for a firm to predict the future supply-demand situation and where there might be large unexpected changes in the market (Wathne & Heide, 2004). In these situations, it is uncertain what the changing needs and preferences of different firms will be (Zhang, Tse, Wang & Gu, 2021). This might lead to the fact that a supplier is constantly on edge and does not have the assurance of volume continued business volume. Therefore, it is unlikely that there will be investments in relationship-specific assets (Ma et al., 2021) leading to the fact that it will be harder to establish a good relationship between a buyer and supplier when the market has a higher level of uncertainty. So market conditions have an influence on which relationships a firm pursues (Wang et al., 2023). Hence, different levels of market uncertainty could also influence supplier resource allocation decisions.

High market uncertainty can decrease the level of mutual trust between buyer and supplier because there might be a higher perception of fairness asymmetry which is present since it is harder to read and react to signals in uncertain markets (Wang et al., 2022). A second reason for this decrease in mutual trust is the fact that firms are less likely to allocate resources to monitor possible opportunistic behaviour in highly uncertain markets, which increases the chances of a partner firm acting opportunistically (Wang et al., 2022). A reason for this is that during high market uncertainty, there might be an information overload in which a firm cannot process all information available (Krishnan, Martin & Noorderhaven, 2006). These monitoring activities can be expensive and would lead to even more information, but as a firm gets overwhelmed it will not be worth anything giving a reason for firms not to invest too much in monitoring in uncertain markets. This decrease in mutual trust that follows can then lead to lower commitment to and willingness to invest in a specific relationship, because of which supplier performance often becomes worse (Wang et al., 2022; Ma et al., 2021). Moreover, market uncertainty also leads to less supplier flexibility, decreasing supplier performance in terms of quality, commitment, trust and buyer satisfaction (Han, Sung & Shim, 2014). These negative influences of market uncertainty could be shown by different resource allocation decisions a supplier might make based on how uncertain a market is. In an uncertain market, firms need to focus more on handling problems quickly and competently meaning it is important to have good dynamic and absorptive capabilities (Zhang et al., 2021). This means firms may apply strategies to profit as much as possible right now but keep options open in the long run without committing to one or a few partners. Firms operating at higher levels of perceived market uncertainty will more actively explore the market for possible new relationships since for those firms it is important to ensure future business and to remain competitive in the market (Wang et al., 2023). Exploring the market and finding new business relations in the network of current suppliers or collaboration with suppliers is more important for innovation than having strong ties with a single supplier (Zhang, Wang & Zhou, 2023). Especially in uncertain markets, this tie brokerage is important since it leads to new information, knowledge and innovation which is harder to obtain by having a single, strong relationship (Zhang et al., 2023). Wang, Zhou, Bai & Li (2024) warn buyers for supplier opportunism when buyer trust exceeds supplier trust in

a relationship, especially in situations where there is regulatory uncertainty. Information gathered about the external environment by exploring different relationships can also be utilised to improve already existing relationships in highly uncertain markets because more and better knowledge will be obtained by having a larger network (Zhang et al, 2021; Wang et al., 2023). Furthermore, Lumineau, Jin, Sheng & Zhou (2022) identify market uncertainty as a reason for suppliers to behave less opportunistically when there is asset specificity for either buyer or supplier. So there might also be some situations where high market uncertainty brings advantages for obtaining supplier resources.

In situations where market uncertainty is low, there are not many threats (Wang et al., 2023) and it will be easier for firms to assess future risks and payoffs of a specific relationship (Lumineau et al., 2022). Therefore it will be easier for firms to decide what a smart decision is compared to situations with higher market uncertainty. Moreover, in markets with low uncertainty exploring substitute or complementary suppliers might not be worthwhile or necessary, which makes current relationships more important (Wang et al., 2023). Additionally, suppliers will be discouraged from showing opportunist behaviour when market uncertainty is low if there is high asset specificity, indicating a supplier will be content with existing relationships when there might not be too much demand for a certain product (Lumineau et al., 2022). This would mean more resources might be available for one buyer at a single supplier if market uncertainty is lower. However, when a buyer has large asset specificity this enhances the chances of suppliers behaving opportunistically, especially in case of low market uncertainty (Lumineau et al., 2022). So there are also situations where suppliers will be more likely to look for other potential buyers when there is low market uncertainty. This would mean that less resources can be allocated to existing customers. So there are some advantages and disadvantages regarding buyer-supplier relationships for both high and low market uncertainty and it is not clear if buyers will get allocated more supplier resources in a situation with high or low market uncertainty.

3. Hypotheses

3.1 The Effect of Supplier Dependence on Supplier Resource Allocation

Extant literature has indicated different possible results about the relationship between supplier dependence and supplier resource allocation. Looking from a financial point of view it seems like the best idea for suppliers to keep current customers satisfied because finding new customers is more expensive than retaining existing customers (Gallo, 2014). Especially when a supplier is dependent it might lead to more resources being allocated toward those important customers since these will be harder to replace. Even though these powerful buyers get a relatively larger part of the created value by the relationship, these large buyers will still bring a lot of absolute monetary value to the supplier (Caniëls et al., 2018). Ultimately, a supplier aims to earn money, therefore a supplier might be happy about the relationship with large buyers regardless of the dependence on this buyer. Especially because these buyers buy physical resources in larger volumes than other buyers leading to more revenue for the supplier. This could mean that dependent suppliers will try to keep a powerful buyer satisfied, making sure that the revenue gained from such a relationship is kept in the future (Howard et al., 2016; Shou, Gong & Zhang, 2022). Dependent suppliers can do this by allocating high-quality physical resources to powerful buyers and adhering to additional rules, which the supplier would not do for other buyers (Gelderman, Semeijn & Verhappen, 2020). When a dependent supplier is not happy with the relationship, for example because power is used in a coercive way, the supplier might start to look elsewhere to allocate its resources (Huo et al., 2019; Pulles et al., 2014). However, since acquiring new customers is an expensive process, the dependent supplier will still need the large buyer to finance the search for new customers. This means that also in a scenario where the supplier is not very happy with

the relationship the supplier will have an incentive to allocate physical resources to a large and powerful buyer, since this earns the supplier the most money which can be used to acquire new customers. Therefore the hypothesis is that supplier dependence will have a positive effect on resource allocation of physical resources.

Hypothesis 1 (H1): Supplier dependence is positively related to supplier resource allocation of physical resources.

Often dependent suppliers will try to lower dependence on important buyers and dependent suppliers will often be less committed to the relationship (Casciaro & Piskorski, 2005; Kim & Zhu, 2018). Unless a very clear contract has been compiled during the relationship, buyers are much more likely to show opportunist behaviour when the supplier is dependent (Wang, Zhang, Li, Huo & Fang, 2020), which can harm a relationship between buyer and supplier (Steinle, Schiele & Bohnenkamp, 2020). This shows that it is smart for suppliers to look for other customers on which the supplier will be less dependent. By doing this suppliers can avoid suddenly losing very important buyers and thus revenue without having other potential buyers to fill in this void. When an important buyer wants to make sure that more innovation resources are allocated relevant information should be shared with the supplier and use power should be used non-coercively (Kim, 2020; Huo et al., 2019). This might increase the value for the supplier because by taking away uncertainty about the future, the buyer shows commitment to the relationship. Since supplier dependence leads to less R&D intensity from that supplier (Kim & Zhu, 2018) the amount of innovation resources allocated by a dependent supplier might be lower. There are actions such as information sharing and making sure there is a large network with knowledge that can mitigate these negative effects but that means additional effort is required. Since the future with that buyer is not certain for a dependent supplier and there is a massive problem if the buyer certainly leaves, it seems like a good idea for dependent suppliers to try and spread the chances. By allocating innovation resources elsewhere, it might be easier to find new customers since there is capacity to modify items to comply with specific demands or have more spare capacity to seize sudden opportunities. This would correspond with the idea that high levels of innovation can mean that the supplier is looking to serve more different customers by offering other services (Kim, 2020; Casciaro & Piskorski, 2005). So either a buyer has to provide certainty about the future of the relationship by clear contracts, sharing important information and rewarding suppliers or the supplier will allocate innovation resources elsewhere. However, signalling commitment to a supplier can hurt obtaining a preferential resource allocation position if supplier dependence is high (Pulles et al., 2023). Additionally, supplier looking for other customers does not necessarily trigger buyer opportunism (Steinle et al., 2020). This shows that suppliers might get the freedom to look for other potential customers without negative consequences coming from the buyer, meaning suppliers have more freedom to explore other relationships making themselves less dependent in the future. By saving more innovation resources for potential new customers it might be easier for suppliers to convince new potential buyers to actually become a customer. Therefore the hypothesis is that supplier dependence has a negative effect on the allocation of innovation resources.

Hypothesis 2: Supplier dependence is negatively related to supplier resource allocation of innovation resources.

This means that H1 and H2 predict a different effect of supplier dependence on the allocation of physical and innovation resources. The main reason for this difference is the fact that suppliers will try to decrease dependence on one or a few buyers (Casciaro & Piskorski, 2005; Howard et al., 2016). Because of this dependent suppliers are reluctant to invest too much time and effort in a specific relationship with a dependent supplier (Kim, 2020; Ma et al., 2021). Particularly for acquiring innovation resources it will be essential to overcome the negative effects of supplier dependence on

resource allocation. So as long as firms share information and become some sort of knowledge base for the dependent supplier then supplier dependence might have a positive effect, but as a baseline, a negative effect is expected between supplier dependence and supplier resource allocation of innovation resources. Whereas physical resources would be allocated to the large buyers, because of the large revenue streams for the supplier if the buyer is satisfied (Caniëls et al., 2018).

3.2 The Effect of Market Uncertainty on Supplier Resource Allocation

Where different outcomes of supplier dependence on supplier resource allocation have previously been found, the effect of market uncertainty on supplier resource allocation is even more ambiguous since a direct study is missing. Instinctively, the smartest decision seems to be to keep options open in cases where market uncertainty is high because of the sudden unexpected changes that can occur. These can provide firms with better options than previously available. This would mean that a negative effect of market uncertainty on supplier resource allocation should be expected because firms will try to keep as many customers satisfied as possible and thus spread resources over more different customers. This would fit the narrative of broadening networks in case of market uncertainty, meaning more different relationships will be explored (Howard et al., 2016). This could be a result of decreasing levels of mutual trust in interorganisational relationships when there is high market uncertainty (Wang et al., 2022). Furthermore, buyers find it less important to retain good relationships with suppliers when market uncertainty is high and more important to explore the market (Zhang et al., 2021). This can show in the behaviour and effort the buyer puts into the relationship. When suppliers notice this behaviour it might be reciprocated and thus the supplier will also put in less effort to retain the relationship in cases of high market uncertainty. So, during high market uncertainty, both parties in a relationship might start to think the other is up to something. This might be a reason for doubt to creep into the relationship and suppliers will take action and ensure future existence by allocating resources to a broader base of customers in cases of higher market uncertainty. However, it is also possible to see it the other way around. In a situation with lower market uncertainty, a supplier will have more clarity about the future and with whom it will be most valuable to further develop relationships. This will mean that in such cases it might be clearer where resources should be allocated for the supplier to grow. Therefore a supplier will opt for certain customers when there is low market uncertainty and those customers will receive more resources than other buyers. Since it becomes harder to see where the future is headed in markets with high uncertainty it is more ambiguous for suppliers where resources should be allocated to get the most benefits. Because more market uncertainty makes it harder to see what the best strategic choice is for a supplier, it is predicted that suppliers will spread resources over more different buyers when market uncertainty is high. This means that in markets with higher uncertainty, less physical resources will be allocated to specific buyers.

Hypothesis 3: High market uncertainty is negatively related to supplier resource allocation of physical resources.

Since highly uncertain markets can contain situations with many and unexpected changes, suppliers need good innovative capabilities. This can help to make sure a supplier stays relevant in perceived ambiguous and possibly risky situations. However in cases of market uncertainty firms are often reluctant to invest in relationship-specific assets (Ma et al., 2021) and will thus likely invest more in general innovation, rather than customer-specific innovation. Innovative capability could become less valuable for relationship quality during fast-paced market changes in situations with high market uncertainty and there might be more difficulties in matching resources between buyer and supplier (Zhang et al., 2021). This can be a reason buyers are ought to be flexible in cases of uncertainty and not rely on just one supplier (Dreyer & Grønhaug, 2012). If buyers do not do this and trust the supplier

more than the supplier trusts the buyer in an uncertain market, there might be negative impacts on the amount of resources a supplier allocates (Wang et al., 2024). The result of this is that buyers should explore more different suppliers to get the best resources available and will not commit to just one supplier. Therefore, good suppliers will also divide attention over more different customers when markets are uncertain rather than focusing too much on one or a few larger buyers preventing too much sudden turnover loss. So during high market uncertainty there are a lot of suppliers that try to come up with innovations, however, these suppliers are likely not doing this for a specific buyer. This may be one of the reasons that when market uncertainty is high, the positive effect of innovation capability on relationship quality is much smaller than when market uncertainty is low (Zhang et al., 2021). During low market uncertainty, there may be more customer-specific innovation resource allocation since it is clear how the industry will develop. Then suppliers might opt to allocate more innovation resources to a specific customer with whom the supplier sees a lot of value in a future relationship. No or fewer sudden changes in the market have to be taken into account and therefore less capacity will be needed in a more general setting and thus more innovation capacity can be used for specific customers. This results in the hypothesis that higher levels of market uncertainty will lead to lower amounts of innovation resources being allocated towards specific buyers compared to situations where market uncertainty is lower.

Hypothesis 4: High market uncertainty is negatively related to supplier resource allocation of innovation resources.

3.3 Supplier Dependence and Market Uncertainty

Past studies have found differing effects of supplier dependence on supplier resource allocation, which might be because different contexts were considered. Market uncertainty might be one of these context factors that can influence the relation between supplier dependence and supplier resource allocation, therefore it could be interesting to look at a possible interaction between supplier dependence and market uncertainty.

A dependent supplier is expected to allocate more physical resources (H1). However, when a market is uncertain, more dependency might lead to relatively less resource allocation of physical resources than in markets with lower uncertainty. This is because a supplier might aim to keep all future interested customers at least somewhat satisfied to keep options open in the long run (Shin & Ariely, 2004). That would mean that the dependent supplier needs to divide resources among more potential customers and cannot easily prefer larger buyers. This can be important since in a highly uncertain market it could happen at any moment that a firm suddenly finds a good opportunity (Wathne & Heide, 2004). Any customer could suddenly increase the number of orders, then it would be important for the supplier to instantly come to mind at the buyer to have a chance of securing more business from that customer. Therefore, it is important to have at least some sort of decent relationship with the buyer. Because of this, it is also important to supply this buyer in times when this buyer is less profitable. This also fits the narrative that the flexibility of a supplier is important for buyers to be satisfied with a relationship and it might be even more important in uncertain markets (Han et al., 2014). In general during market uncertainty also trust and commitment decrease between business partners (Han et al., 2014; Wang et al., 2022). Therefore it seems more logical that a supplier will act in the moment and see what the best opportunity is at any time, quickly adapting to the situation and thus allocating resources over multiple buyers that can all suddenly grow meaning dependency structures in relationships might also change faster. Still, the buyer on which the supplier depends at a specific point in time will get more physical resources allocated than other buyers because it is more valuable for the supplier at this moment. Though, it is expected to be less compared to a situation with low market uncertainty because

it will be more important to also keep other buyers satisfied. Therefore it is hypothesized that market uncertainty will decrease the positive effect of supplier dependence on supplier resource allocation of physical resources.

Hypothesis 5: Market uncertainty will decrease the positive effect of supplier dependence on supplier allocation of physical resources.

In hypothesis 2 dependent suppliers are expected to allocate lower amounts of innovation resources to the more powerful buyers. Mostly because of the expectation that suppliers want to prevent buyers from getting so much power that a supplier can be pressured into doing something. With lower supplier dependence the chances that a buyer can pressure the supplier into doing something the supplier may not want to decreases. When a market is more uncertain being too dependent on one or a few buyers seems even more dangerous for a supplier than in markets with lower uncertainty. For example in markets with more uncertainty buyers are more reluctant to invest in specific supplier relations, which shows less commitment to a relationship (Lee, Yeung & Cheng, 2009). Lower commitment could lead to a situation in which a buyer is very self-centred, instead of putting the relationship first, which could lead to more power abuse which a supplier wants to avoid. Therefore a supplier will have to either spread risk over more buyers by spreading resources over a larger number of buyers or be very focused on relationship building. With the second option, it is still important that the buying firm also engages in relationship building and thus the supplier will not have full control over the situation. When considering a situation in which market uncertainty is low and where it is predictable what the future payoffs from a relationship will be (Lumineau et al., 2022), it seems more logical to choose one or a few buyers that will be very valuable to the supplier in the future and allocate most innovation resources to those buyers and grow together with those customers. Whereas the exact opposite might be the case for situations with high market uncertainty.

When spreading innovation capacity over a lot of different buyers, for example, think about investing time with a lot of different buyers, the supplier will collect much more information about how the market moves forward and what opportunities might arise in the near future. If there is this little bit more clarity, a small shift of supplier resource allocation might take place to anticipate developments in the market, this way a supplier will be able to profit more from the changes. However, to be able to do this over the long term, time and effort must be allocated to many partners to stay up to date on all market developments. This means that resource allocation should be split over a lot of different suppliers during market uncertainty, meaning that lower amounts of innovation resources will be left to allocate to a specific buyer. Due to these arguments, it is predicted that market uncertainty will strengthen the negative effect on supplier dependence on supplier allocation of innovation resources.

Hypothesis 6: Market uncertainty will strengthen the negative effect of supplier dependence on supplier allocation of innovation resources.

In Figure 1 all hypotheses compiled in this chapter are summarised in a conceptual model to provide oversight about the predictions that will be tested in this study.

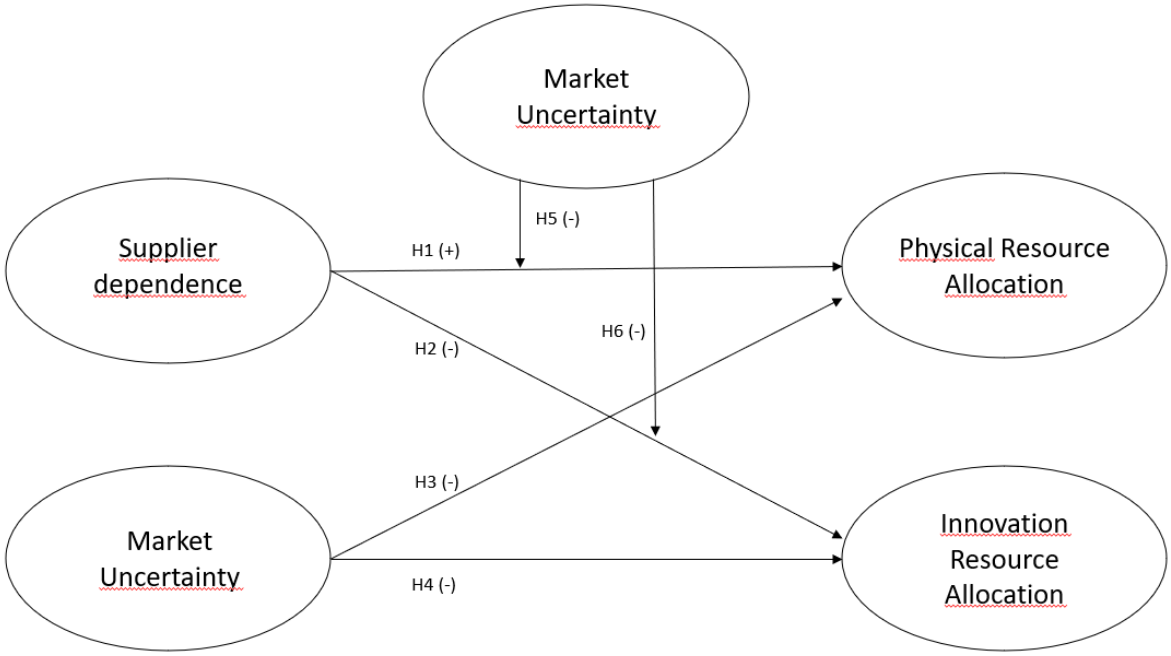

Figure 1 Conceptual model

4. Methodology

To find an answer for the research question a mixed method approach will be taken. The first study will consist of a policy-capturing experiment, testing the hypothesis compiled in the previous chapter. A second study will consist of interviews aiming to explain the results of the policy-capturing experiment. The interviews should create more in-depth knowledge and provide further explanations about possible relationships between the variables. Since the interviews will be held from a purchasing perspective, the interviews could also raise misconceptions about certain assumptions purchasers might have about supplier resource allocation.

4.1 Policy Capturing Procedure

First, a policy-capturing experiment will be conducted to test the hypotheses. This experiment aims to find general tendencies in supplier decisions about resource allocation. Policy capturing is a regression-based methodology in which participants are asked to make decisions based on a presented hypothetical scenario aiming to explain existing judgements or future decisions (Aiman-Smith, Scullen & Barr, 2002). This means that a vignette is developed where the participant is presented with a clearly described, specific scenario and is asked to make a certain decision based on the presented information. One of the advantages of an experimental approach is that the variables (cues) can be controlled and therefore it is clear what variables influence the decision process. This can sometimes be ambiguous when a real-life situation is used (Eckerd, 2016). The ability to manipulate the variables also assures that different scenarios can be measured without relying on participants being in a specific scenario in a real-life context. Another advantage of an experimental approach is that participants will answer more honestly compared to techniques that do not use experimental intervention (Tomassetti, Dalal & Kaplan, 2016).

However, there are also risks to policy-capturing research. It might be harder to ensure the validity, due to the possibility of a lack of realism. This is the case because it is impossible to involve all variables that are present in a real-life decision-making scenario and thus respondents always miss some

information that might be relevant (Karren & Barringer, 2002; Aiman-Smith et al., 2002). Furthermore, participants are asked to make the same decision multiple times based on different inputs in a short amount of time. In a real scenario, people would only make one decision, based on one set of conditions and have much longer to think about that scenario and what actions will be taken (Karren & Barringer, 2002). Because of this, the variables in the scenario must be a good representation of realistic situations, be understandable for all participants and be comprehensive enough so it is taken seriously, which will also prevent boredom during participation (Aiman-Smith et al., 2002; Karren & Barringer, 2002). The threat of not including all possibly relevant variables is somewhat mitigated by the fact that people usually make decisions on relatively few criteria due to cognitive limits (Cooksey, 1996).

Aiman-Smith et al. (2002) also point out that participants might need to get accustomed to reading and immersing themselves in the scenarios. To prevent this issue, it is important that participants directly understand what is presented to them (Aiman-Smith et al., 2002). To prevent possible start-up effects everything will be explained clearly, it will be described in detail what is expected of the participants and what all variables mean. More precisely the participants will be sent a link to a Qualtrics experiment consisting of the following build-up. First, an introductory page will be presented with general information like guaranteeing anonymity, thanking them for participating and some details of what is expected. Next, the scenario will be sketched, this includes a description of a hypothetical company and an explanation of what the goals of this company are. Hereafter, the goal of the study is explained and explicitly states that the study asks how participants would allocate resources based on certain customer characteristics. Then, the variables will be defined so it is clear to participants what everything means. After these explanations, participants should be ready to complete the experiment and will be asked to make the resource allocation criteria based on the presented scenarios. Finally, there will be a final page which asks the participants how the experiment participation was perceived and some personal information is requested so some checks can be performed when analysing the data.

4.2 Sample

To make the experiment as representative and realistic as possible the sample should consist of people who are involved in resource allocation decisions in the real world (Aiman-Smith et al., 2002; Karren & Barringer, 2002). Therefore people with functions such as account managers, a sales position or someone with another function who would be making such decisions will be approached to take part in the experiment. By gathering these expert opinions, study results will be more valid and results will be more generalisable (Aiman-Smith et al., 2002). Answers of participants will be protected by making sure the results will be anonymous, which may also help against social desirability issues. As to the sample size, relatively small samples are not uncommon in policy-capturing research, however, more responses will increase the power of the study (Karren & Barringer, 2002).

The sample will consist of suppliers of a large high-tech manufacturing company in The Netherlands. This firm has around 2.000 employees worldwide, with about 800 employees based in The Netherlands. Focus will be on the suppliers of electrical components who are active worldwide, however, for this study suppliers selected for participation will be located in either The Netherlands or Germany. Since the focal company that provided the supplier contacts has a good relationship and quite a lot of spend at these suppliers there are dedicated account managers or salespeople who will be approached. Ten people were requested to participate in the experiment. Next to these ten people, thirty other people were approached by other researchers to take part in the experiment. Data gathered by these other researchers is also used in the experiment analysis. The experiment was open

for about four weeks after the initial invite. The initial invite was followed with one reminder via mail and a phone call requesting participants to participate in the experiment if not completed already. In total 256 decisions were made, which means 32 participants (84.6% male, 15.3% female) completed the experiment. This means that the response rate is 80%, which is high compared to other studies on buyer-supplier relationships. Participants may have stopped the experiment before completing it because it took longer than expected, contributing to the 20% nonresponse. The median time was around 22 minutes, whereas it was communicated that completing the experiment would take about 15 minutes. Other reasons for nonresponse can be that people considered the experiment to be irrelevant or had other obligations which were more important than completing the experiment. The participants were a diverse group of people from Europe, the majority (73.9%) being Dutch. The age varied between 26 and 69 years with 44.6 years of age on average (median: 49.5). Participants experienced varied between 2 and 49 years of experience with an average of 21.1 (median: 23) years.

4.3 Measurements

The specific situation will be sketched by the independent variables and some additional variables. The total number of possible scenarios depends on the possible levels per variable. For representativeness, the design must capture the important elements of real-life scenarios. In policy capturing research, it is not possible to include all possibly relevant variables, therefore it is important to choose the right ones that really could have an impact (Karren & Barringer, 2002). Of course, the variables in which this study takes an interest: supplier dependence and market uncertainty will be included. Apart from supplier dependence and market uncertainty, the study will include buyer-specific uncertainty, relationship length and buyer distinctive competences to create a scenario. Having more variables adds complexity preventing participants from guessing answers (Aiman-Smith et al., 2002). All five variables will have a high and a low option, which will lead to $2^5 = 32$ versions of the developed vignette, exceeding the minimum of five scenarios per variable added which would be 5 x 5 = 25 in this case (Cooksey, 1996; Karren & Barringer, 2002). Aiman-Smith et al. (2002) note that it is important to present variables in a way that is representative of a real scenario. Since supplier dependence can be generally expressed in a percentage, 5% and 20% dependency on a certain customer is used as the low and high dependency situations. Having realistic treatment levels will also increase the internal validity of the study (Karren & Barringer, 2002). To avoid problems of subjects focussing too much on one variable it is important that all variables have about the same range otherwise a participant might attribute the decision too much to one of the variables (Aiman-Smith et al., 2002). By having a high and low option for all independent variables, where supplier dependence is operationalised in percentages to help with interpretation, this problem should be prevented.

Apart from this, it is also important to make sure all scenarios are realistic, engaging and accurate. This helps the participants maintain concentration on the experiment (Rungtusanatham, Wallin & Eckerd, 2011). During the study design phase, no scenario (out of the 32) was identified that was so unrealistic it needed to be removed. To prevent people from experiencing stress, exhaustion or fatigue issues while filling in the experiment an incomplete block design approach will be used rather than a full factorial design. This is a design in which each participant only considers a subset of scenarios instead of looking at all possible scenarios (Graham & Cable, 2001). The 32 total scenarios are divided into four blocks of eight. Each participant is randomly presented with one block consisting of eight scenarios. The main advantage of this is to lower the demand placed on participants while including more variables without hampering the validity of the study (Graham & Cable, 2001). To make sure that the main effects of the study are not influenced by this design each level of each variable must be present

equally as often in all blocks (Cochran & Cox, 1957). To prevent people from recognizing a pattern the order is distorted after the blocks were designed, leading to the block design in Appendix A.

Participants are asked to decide how likely it is that physical resources and innovation resources will be allocated in the presented scenario. This decision will be made on a 7-point Likert scale where a 1 indicates a situation in which it is very unlikely that a substantial portion of the resources will be allocated to a specific customer. A score of 7 indicates a situation where it is very likely that a lot of resources will be allocated to the customer. Both physical and innovation resources will be measured twice. For both types of resources there will be a question if a substantial portion of resources will be allocated to satisfy the demand of the customer. The second measurement asks if most of the resources will be allocated to that customer.

4.4 Treatment Checks

It is important that participants interpret everything correctly because this increases study reliability and validity (Karren & Barringer, 2002). To check whether participants perceived the scenarios as realistic, participants will be asked if the scenarios were realistic and how hard it was to imagine themselves in the presented situations at the end of the experiment. Next to this also some information about the participants themselves will be collected to see if there was anything else that may have influenced the results. These are the extent to which a participant is risk averse, age, working experience, nationality and gender. From these variables age and risk aversion will be used as control variables in the study.

Based on the descriptive statistics a few things were noteworthy. First of all, there were four physical and innovation resource allocation decisions missing, indicating that participants may not have filled in the whole experiment. Since each variable must be presented the same amount of times in all blocks deleting the observation is not a viable option (Cochran & Cox, 1957). The choice was made to take the average score of all resource allocation decisions. After this correction, all resource allocation decisions were between 1 and 7 and thus accurate. To check whether this solution changed the outcome, a test was conducted where observations with missing values were deleted and one where nothing was changed at all. These tests yielded similar results as the models used in the analysis and thus no different solutions would be found when dealing with the missing variables differently. Furthermore, some respondents did not fill in all questions on the final page, leading to some missing data considering function, nationality, gender and personal risk aversion data, however, this will not influence the main effects. For the risk aversion data that is used as a control variable also the averages will be taken to fill in blank responses. For this also a check was conducted deleting the missing values, again yielding similar results as to the chosen solution.

4.5 Reliability Check

To check whether the resource allocation measurements for physical and innovation resources are consistent, the Cronbach's alpha is computed. For physical resources this resulted in an estimated Cronbach's alpha of 0.859 and for innovation resources the Cronbach's alpha score was 0.858. Since the Cronbach's alpha is > 0.80 internal consistency of the measures is high and the averages were taken to compute two new variables: AvePhys (average of the two physical resource allocation decisions) and AveInn (average of the two innovation resource allocation decisions) (Lance, Butts & Michels, 2006). Looking at Cronbach's alpha of all four measures combined gives a score of 0.912. So, large differences in allocation decisions between physical and innovation resources seem unlikely. However, since the

hypotheses distinguish between physical and innovation resources the choice was made to not make a single variable for resource allocation as a whole.

Apart from the reliability check for the dependent variable, also risk aversion was measured with six different measures. For questions one to four and question six a higher score means a participant would be less comfortable in risky situations. For question five a higher score means being more comfortable in risky situations. Therefore the answers to question five were reversed (8 - score given by participant). The Cronbach's alpha was computed to check the internal consistency of the risk aversion which was 0.554. This is far below the 0.80 threshold (Lance et al., 2006) and means that the average of the risk aversion measures used in further analysis as a control variable may not be very reliable and caution should be taken when interpreting results.

4.6 Interviews

Next to the policy-capturing experiment, a secondary study consisting of five interviews taking a purchasing perspective will be conducted. These interviews will include questions about similar topics to the experiment focussing on supplier resource allocation and the role of supplier dependence and market uncertainty. Literature has suggested to interview people who participated in the experiment to increase validity since these people have the best view of what was taken into account when making decisions in the experiment (Aiman-Smith et al., 2002; Cooksey, 1996). However, in this study it is chosen to look from a different perspective namely from a purchasing point of view. There are a few reasons for this. First of all, this might lead to interesting discussions about how purchasers experience buyer-supplier relationships and how buyers aim to get certain preferential treatment compared to competitors in the supply market, this way it still adds context to the experiment findings. Apart from this, it might also lead to interesting insights when compared to the results of the experiment. Possibly purchasers might think that something enhances resource allocation but when compared to the experiment results it might turn out to be different and thus misconceptions about the effect of certain variables could be discovered. Furthermore, it should help to figure out why certain cues are experienced as more relevant than others and how this can be explained. So the interviews can be of value by possibly identifying misconceptions by purchasers, but also to find a further explanation for the experiment results.

The interviews will be conducted with sourcing buyers in the large high-tech manufacturing firm that provided the suppliers contacts who were involved in the experiment. These sourcing buyers are responsible for managing relations with suppliers and making sure the operative part of procurement can happen without hiccups. Two of the interviewees are mainly responsible for electrical original equipment manufacturer (OEM) components (buyers 1 and 4), two focus mainly on mechanical OEM parts (buyers 3 and 5) and one buyer focuses on larger mechanical parts that need more work and suppliers may not be able to keep on stock, such as frames (buyer 2). This particular purchasing department has had some issues with resource allocation in the past years due to disruptions and should therefore be able to provide interesting insights about why resources are allocated. Furthermore, these purchasers were very focused on relationships with suppliers, with this being one of the core points in all interviews. The interviews will be semi-structured, questions will be prepared, but room for deviation will be allowed. First, some general questions about the function of respondents will be asked. After this the order of the hypotheses will be followed, meaning that there will be some questions regarding supplier dependence and market uncertainty. The interview will be concluded by considering the remaining variables and an open question about what is important to the buyers in buyer-supplier relationships. Because of the semi-structured nature, there is a possibility to deviate from the main questions when a participant has an interesting story about any of the subjects when

these are not explicitly stated as a question. By asking purchasers who deal with resource allocation everyday results should be reliable. By preventing the use of guiding questions and guaranteeing the confidentiality of the interview data validity of the interviews is increased.

5. Results

5.1 Experiment Results

Data was analysed with a linear regression using JASP software to check the effects of supplier dependence and market uncertainty on supplier resource allocation. JASP is an open-source software for statistical analysis by the University of Amsterdam designed to be easy to use. The program works similarly to SPSS but uses R syntax for statistical analysis and is available at https://jasp-stats.org/download/. To help understand the distribution of resource allocation decisions, descriptive statistics of the dependent variables, average physical resource allocation and average innovation resource allocation, are depicted in Table 1. The table shows that there is quite a large spread in resource allocation decisions. Since all different levels of the independent variables should be present equally as often this spread in resource allocation decisions could be expected. Table 2 shows the regression results of the different models that were tested. Models 1a and 2a show the relationships between the control variables and resource allocation of physical and innovation resources respectively. Models 1b and 2b include the direct effect of the independent variables, supplier dependence and market uncertainty on supplier resource allocation. Models 1c and 2c also include an interaction term between supplier dependence and market uncertainty, to test whether market uncertainty influences the effect of supplier dependence on supplier resource allocation decisions.

Table 1 Descriptive statistics of dependent variables

	Count	Mean	St. dev.	Median	Min	Max
AvePhys	256	4.109	1.612	4	1	7
AveInn	256	4.183	1.665	4.341	1	7

Table 2 Unstandardized regression results [a, b]

	Physical Resources			Innovation Resources		
	Model 1a	Model 1b	Model 1c	Model 2a	Model 2b	Model 2c
Age	-0.009 (0.287)	-0.009 (0.205)	-0.009 (0.192)	-0.012 (0.172)	-0.012 (0.111)	-0.012 (0.109)
Risk aversion	0.313 (0.030)	0.313 (0.010)	0.289 (0.018)	0.342 (0.022)	0.342 (0.007)	0.335 (0.009)
Supplier dependence (SD)		1.810 (<0.001)	2.071 (<0.001)		1.775 (<0.001)	1.846 (<0.001)
Market Uncertainty (MU)		-0.461 (0.008)	-0.200 (0.471)		-0.391 (0.033)	-0.321 (0.217)
SD*MU			-0.522 (0.136)			-0.141 (0.703)
R^2	0.021	0.317	0.323	0.025	0.293	0.293
Adjusted R^2	0.013	0.307	0.310	0.017	0.282	0.279

[a] N = 256. [b] p-values in parentheses

First, the hypotheses regarding supplier dependence on supplier resource allocation are tested using the complete models (1c and 2c). The effect of supplier dependence on physical resource allocation is positive and significant (B = 2.071, p < 0.001), meaning hypothesis 1 is supported. Also, the effect of supplier dependence on the allocation of innovation resources is significantly positive (B = 1.846, p < 0.001). This means that there is evidence that higher supplier dependence increases supplier allocation of innovation resources. This is an opposite effect than predicted with hypothesis 2 and thus hypothesis 2 is rejected.

Hypothesis 3 predicts a negative effect of market uncertainty on supplier resource allocation of physical resources. The regression results of model 1c do indeed show a negative effect, but it is insignificant (B = -0.461, p = 0.471) this means hypothesis 3 is not supported by this model. Similarly, hypothesis 4 predicts a negative effect of market uncertainty on supplier resource allocation of innovation resources. This also shows in the regression results, but this effect is insignificant (B = -0.321, p = 0.217), showing no support for hypothesis 4.

Hypothesis 5 and 6 predict that market uncertainty influences the relationship between supplier dependence and supplier resource allocation for physical and innovation resources respectively. Hypothesis 6 predicted that the negative effect of supplier dependence on innovation resources would be strengthened. However, since hypothesis 2 found opposing evidence than predicted, the data for hypothesis 6 now tests whether the positive effect of supplier dependence on supplier resource allocation of innovation will be weakened. As predicted, a negative interaction effect was found for both allocation of physical (B = -0.522, p = 0.136) and innovation (B = -0.141, p = 0.703) resources. So, the positive effect seems to be weakened but has not become negative, similar to the hypotheses. However, the effects were nonsignificant, therefore hypotheses 5 and 6 are rejected.

Because of the insignificant changes in explained variance between models b and c, the models without the interaction term (1b and 2b) will also be considered. The complete models, 1c and 2c, accounted for 32.7% (R^2 = 0.323) and 29.3% (R^2 = 0.293) of the variance in supplier resource allocation for physical and innovation resources respectively. For physical resource allocation, this is very similar to the explained variance of the model without the interaction term (R^2 = 0.317) and even identical to the innovation resource allocation model without the interaction term (R^2 = 0.293). This means that models 1c and 2c do not necessarily explain more of the variance in supplier resource allocation compared to models 1b and 2b. Therefore it might also be important to consider possible differences between the models with or without the interaction term and see how this affects results. Since the models including the interaction terms do not improve either model 1b (R^2 change: 0.006, p = 0.136) or 2b (R^2 change = 0.000, p = 0.703), hypotheses 5 and 6 are rejected.

In models 1b and 2b the positive effects of supplier dependence stay positive and significant for both physical (B = 1.810, p < 0.001) and innovation (B = 1.775, p < 0.001) resources, providing support for hypotheses 1 and finding an opposing effect as predicted with hypothesis 2. When looking at the effect of market uncertainty on supplier resource allocation there are some differences compared to models 1c and 2c. Hypotheses 3 and 4 predict a negative relationship between market uncertainty and supplier resource allocation for physical resources and innovation resources respectively. Where models 1c and 2c found negative but insignificant effects, the models without the interaction effect do find support for these hypotheses with a significantly negative effect for physical resource allocation (B = -0.461, p = 0.008) and innovation resource allocation (B = -0.391, p = 0.033) providing support for hypotheses 3 and 4.

These results show that especially supplier dependence is a good predictor of the amount of resources a supplier allocates, with more dependent suppliers allocating more physical and innovation resources. Furthermore, market uncertainty leads to suppliers allocating less physical and innovation resources. Looking at the control variables, age does not influence resource allocation decisions, while risk aversion has a positive significant effect in all models. That means when a person is more risk averse, more resources will be allocated to customers. There is no evidence that an interaction effect of market uncertainty and supplier dependence exists.

5.2 Interview Results

The interviews provide additional insight into how supplier dependence and market uncertainty influence supplier resource allocation decisions. Generally, the interview results confirmed that purchasers experienced similar effects of supplier dependence and market uncertainty as found in the experiment results. The interviews generated possible explanations for the findings of the experiment which will be discussed in the following sections. Also, some insights on how to possibly mitigate the negative effects of market uncertainty are provided by the interviews. Quotes that might help to understand the concepts and suggestions about what a firm can do in certain circumstances are represented in Table 3 and will be further discussed in the following sections.

5.2.1 Supplier Dependence Influence on Supplier Resource Allocation

After the experiment provided evidence for the positive effect of resource allocation, also the buyers mentioned that dependent suppliers will often put more effort into a relationship than other suppliers. This is shown by the fact that dependent suppliers will drop other things to help the large buyer and are better and faster in communication. The interviewees also mentioned that for suppliers it is eventually about who will be the most profitable customer for a supplier, that customer will be allocated more resources. Generally, these are the larger powerful buyers or buyers in whom the supplier sees a lot of growth potential. That means that such customers will be allocated the most physical items, but also that suppliers want to work together on innovation projects with these types of buyers. That buyers also take this attitude from suppliers into account shows by the fact that suppliers with whom the focal firm spends below a certain threshold will not be included in the supplier base because these suppliers would not care enough about the relationship. Another interesting finding is that buyer 2 mentioned a target spend of 10% of the total turnover of the supplier. At this level, suppliers would find the customer important and no additional risks from having a dependent supplier will be experienced. When having a larger turnover buyer 2 feels like it carries too much risk if something goes wrong at a supplier or the supplier might feel uncomfortable by the amount of dependence on a singular buyer. This might imply that there can be differences in resource allocation based on the type of product that is bought. Buyer 2 is responsible for larger parts which cannot be easily put on stock, because of this the influence of supplier dependence might be a bit different compared with the other buyers. This links a bit with what was expected in hypothesis 2, which predicted that suppliers would not like to be too dependent on a single buyer and would try to avoid too much dependence by allocating resources elsewhere.

However, in the experiment results no evidence was found for hypothesis 2. Even more so, an opposite effect than predicted was found. The interviews provide a possible explanation for this. Instead of becoming less dependent on a specific buyer, a dependent supplier might try to create a situation of mutual dependence. A supplier can do this by helping the buyer think about future innovation for the buyer, because of which knowledge and chemistry will come along with the relationship, meaning the buyer loses more than just the supply of physical resources if the relationship ends. This importance to

Table 3 Interview quotes

Concept	Quotes[1]	Arguments/Reasoning
Supplier dependence	"*Suppliers who see us as a very important customer because they are dependent on us, will do everything in their power to execute orders for us if we ask for priority*." Buyer 3 (B3)	Dependent suppliers allocate more physical resources.
	"*It [Supplier dependence] leads to faster reactions, better ability to get some work done faster and the general communication will be better and faster*." B2	Being important for a supplier means more effort is put in by the supplier.
	"*Suppliers that are dependent on us want to make more appointments to discuss future business. This also goes for firms where we do not have a large spend now, but who see a lot of growth opportunity*" B1	Dependent suppliers or suppliers who see potential want to put more effort in and also desire this from the buyer.
	"*Not having large enough spend or when you do business for a long time but there is no growth [can lead to less resource allocation].*" B5	Suppliers will allocate resources where the most money can be earned.
	"*Everything below €20.000 has to go via wholesalers because otherwise we are too small a customer for a supplier to put enough effort in*." B1	Buyers need to be substantial enough to warrant a relationship to exist.
	"*Some items are very specific and need to be planned in time because it just takes time to build them*." B2	Supplier dependence influence on resource allocation might differ per type of product.
	"*More than that [10% of supplier turnover] we will find ourselves in a risky situation, if a supplier gets in trouble we will need to divide too much work over other suppliers and also this supplier might feel too dependent on us and be at risk of future existence if we are not there and that will not feel good for a supplier*." B2	Too much supplier dependence may lead to additional risks.
	"*Supplier X is at our offices for questions from us or our engineering and is very active in making new developments for us, thinking about our machines. We are important for them and this way they want to make themselves important to us*." B4	Dependent suppliers try to achieve a state of mutual dependence by creating more value.
	"*Some do, some do not [prioritize us for resource allocation because we are a large important buyer].*" "*This [difference between suppliers] might be because of arrogance, type of supplier they are or what country they are from.*" "*We have some suppliers from the US which are not pleasant partners to do business with, even when you are their largest customer*." B5	Different suppliers deal differently with being dependent. Possible cultural differences.
	"*We always need to balance want we do for and get from a supplier. As long as we are very important and when we are not. That is balancing the playing field it is a bit give and take sometimes, which makes purchasing exciting*." B3	Dependent or nondependent supplier does not matter you still need a balanced relationship.
	"*When you understand each other and have a good relationship, which you should always improve, you get to a point of collaboration and development of collaboration to get the most out of it together*." B5	Get the most out of a relationship for both sides.
Market uncertainty	"*Often you see in a supply chain that it can run very deep, that something cannot get delivered on certain parts, also parts where you think, how can it be that an item cannot be delivered because of this simple part, for example, a cable that cannot be delivered because a small ring or screw is missing because of which something cannot be assembled and delivered*." B1	Market uncertainty leads to less resource allocation because there may be material availability issues.
	"*Delivery times became much longer, products were not delivered and foreign business partners were producing less [when the market was uncertain during COVID*]." B5	More waiting and less resource allocation in uncertain markets.
	"*During market uncertainty suppliers will need to choose between customers, it will be a risk assessment for them. It depends on their strategic choices who will be allocated more resources*." B4	In uncertain markets supplier resource allocation depends on their strategic choices.
	"*Part of it is relationship management, by staying on top of suppliers, you get to know what is happening with; them and in the market and this way you can try to stay ahead*." B2	Good relationships can help mitigate the negative effects of market uncertainty.

[1] Since all interviews were conducted in Dutch, quotes are translated from Dutch to English.

Concept	Quotes	Arguments/Reasoning
	"*When something is not available, often engineering needs to look at different options to substitute the non-available material and try to find a solution. These uncertainties will always stay and you cannot do much about them and just look for solutions*." B2	In highly uncertain markets a firm needs to be more agile/flexible.
	"*No, [in case of market uncertainty] price does not play a large role and it is really about quality and availability*." B1	Buyers are prepared to pay more in uncertain markets.
Supplier dependence in uncertain markets	"*At moments [during market uncertainty] we noticed that small quantities could still be arranged with suppliers with whom you are an important customer. If we were not that important it really led to issues*." B5	Supplier dependence still led to preferential resource allocation in uncertain markets, but availability did become an issue.
Partner specific uncertainty	"*When someone leaves [an employee of a supplier], you lose a part of knowledge and it takes time to rebuild this*" B1	Personal relationships are important.
	"*Yes for sure that [The uncertainty specifically attributable to partners] really has an influence [on the ability to obtain resources], 100%*." B5	Stable relationships are better for obtaining resources.

maximize the total value for both partners in a relationship was something very much present in the focal firm, with a lot of focus on trying to achieve strategic partnerships wherever possible. Finally, in the interview, buyer 5 suggested that culture may influence how suppliers handle dependence on one or a few buyers. Especially suppliers from the United States seem to have a different way of handling supplier dependence with it having less influence on getting preferential treatment compared to other buyers. This means being a large powerful buyer at an American supplier may not be as advantageous for acquiring supplier resources as compared to being a large powerful buyer at a more local supplier in Europe.

5.2.2 Market Uncertainty and Supplier Resource Allocation

The second topic discussed in the interviews was the effect of market uncertainty. Consistent with the experiment results buyers indeed found it harder to obtain supplier resources when a market was uncertain. The interviews generated two main reasons for the lower resource allocation in more uncertain markets. The first and main reason for the lower resource allocation in uncertain markets seemed to be availability problems. When markets are very turbulent there are more disruptions because of which certain parts could not be delivered. For example, due to the COVID-19 pandemic or the war between Ukraine and Russia, certain materials could not be delivered because new restrictions were suddenly in place which were not anticipated by the buying and/or supplying firm. A secondary reason for the negative effect of market uncertainty on resource allocation might be the additional ambiguity in relationships that market uncertainty brings. This ambiguity means that it is harder to determine what actions partners are going to take to deal with the market uncertainty. Therefore, more ambiguity might make it harder for suppliers to determine what a relationship holds in the future and therefore more caution may be taken by suppliers, leading to less resource allocation.

After establishing the negative effect that market uncertainty has on supplier resource allocation, some measures about how to deal with market uncertainty were discussed. One of the primary points was to stay on top of relationships with suppliers and obtain as much information as possible, this way the negative effects of market uncertainty may be minimized. Apart from acquiring as much knowledge about partners and the market also internal decisions can help to minimize the negative effects of market uncertainty. One measure can be to spread risk over more suppliers, chances are that one supplier will be better able to or more willing to allocate resources than another supplier. Especially in the last few turbulent years with the COVID-19 pandemic and the war between Ukraine and Russia, the importance of having multiple sources has become even greater. Furthermore, buying firms should

take a more agile approach when active in very uncertain markets and be prepared to make engineering changes to change to better available materials. Another solution is being prepared to pay more for an item in an uncertain market compared to a stable market to try and ensure that suppliers will prefer higher-paying buyers. When this ensures resource allocation this will be worth it because it prevents delays and quality problems and can therefore be the best decision. So market uncertainty has a negative influence on supplier resource allocation, but there are actions a buyer can take to minimize or mitigate these negative influences.

5.2.3 Interplay of Supplier Dependence and Market Uncertainty

The findings regarding a possible interplay effect of market uncertainty and supplier dependence were very similar to hypothesis 5 and the insignificant result found in the experiment. One of the buyers mentioned that especially at the smaller suppliers, who are more dependent, some things could be arranged regarding more physical resource allocation, be it in smaller quantities than in stable markets. Especially with suppliers who were independent of the buying firm, it was very hard to get preferential resource allocation when there was high market uncertainty. So the separate positive and negative effects of supplier dependence and market uncertainty are very well visible and exist next to each other. However, no interplay effect was found in the experiment and there is also no indication from the interviews to challenge that conclusion.

5.2.4 Other Variables

Finally, the other variables that were included in the experiment were shortly discussed in the interviews, as well as a question about potential variables that were not included in the study design. The main takeaway from these questions was the focus on building relationships with suppliers. Reasons for the importance of healthy relationships are that suppliers will be more prepared to try and give preferential resource allocation because of a good relationship. It is also important to have this relationship between multiple people from each firm, to prevent partner-specific uncertainty from having a negative effect since a lot of knowledge might be lost. However, sometimes firms should also accept that there are different goals for different firms and therefore firms may no longer be compatible. This also means it is important to keep close contact with suppliers and figure out what similar and different goals are to determine compatibility. It will include sharing relevant information such as forecasts and accepting that business partners also make mistakes to get the most out of a relationship. Another example is, that when a buying firm finds sustainability very important the suppliers of this firm should pursue relationships with suppliers who also think this is important. Furthermore, having longer relationships with suppliers may be something that influences being able to obtain more and better resources. Especially the first few years of a relationship seem important to obtain a preferential position and it will stabilize after a few years because partners know and trust each other after that initial period. After this initial period, the perception was that this effect stagnates and thus longer relationships might not further increase the potential positive effects of longer relationships. Specific competences were not argued as a reason that suppliers would allocate more resources, however, a buyer being focused on research and development may be a reason for suppliers to want to work together with a specific buyer.

6. Discussion

6.1 Discussion of Findings

Supplier dependence has a positive effect on supplier resource allocation of physical and innovation resources, meaning a supplier will allocate more resources to a buyer on who the supplier is dependent. For physical resources, this is consistent with the predicted result. Eventually what suppliers care about is financial revenue. Therefore it is important that the buyers who are responsible for the largest part of the supplier turnover stay satisfied with the relationship (Gelderman et al., 2020). Suppliers do this by allocating resources to these large buyers on whom the supplier is dependent. This means a buying firm will benefit from working together with relatively smaller suppliers, since these suppliers will be more dependent on the buyer, leading to more resources being allocated towards this buyer. For innovation resources, this means an opposite effect compared to the prediction that suppliers allocate less innovation resources to large buyers. That was predicted because of the expectation that suppliers try to become less dependent by allocating resources elsewhere than to powerful buyers thereby taking away uncertainty about the future. The interviews led to a possible explanation for this opposing effect. The main reason for this seems to be that suppliers want to make themselves valuable to customers by allocating more innovation resources, especially in the early stages of development. By allocating more innovation resources and collaborating on innovations with a powerful buyer, this buyer will start to value the relationship more. Additionally, more knowledge about innovation will be tied up in the relationship. This way, suppliers seem to try to increase buyer dependence rather than decrease supplier dependence to take away uncertainty about the future of the relationship (Kähköhnen, Lintukangas & Hallikas, 2015). By creating buyer dependence a buyer will lose more than just a source of materials when replacing that specific supplier. Additionally, important knowledge tied up in the relationship will be lost and the buyer will therefore be incentivised to continue the relationship, reducing uncertainty about the future for the supplier. This is a similar effect that becoming less dependent on a buyer would have for the supplier. Therefore the thought process behind hypothesis 2, that a supplier would aim to decrease uncertainty about the future of a relationship, might still be correct. However, instead of doing this by decreasing supplier dependence, a supplier does this by creating mutual dependence. The new situation with a mutual dependency structure, instead of just the supplier being dependent on the buyer, can lead to increased supplier satisfaction in the relationship (Caniëls et al., 2018). This increase in supplier satisfaction can have positive influences on the relationship which will also benefit the buyer (Essig & Amman, 2009). Therefore this change in dependency structure that dependent suppliers look for can also benefit the current large, powerful buyers. Therefore, actively facilitating a state of mutual dependence by sharing relevant information with suppliers can be a valuable strategy. Sharing relevant information may hamper the natural power position, however, this does not necessarily mean that it will hurt supplier resource allocation since the supplier will still be dependent.

Market uncertainty makes it harder to obtain a preferential resource allocation position. This study finds this direct negative effect of market uncertainty on supplier resource allocation, meaning that in a more uncertain market suppliers will be more reluctant to allocate resources to buyers. In the interviews, this was attributed to the fact that in uncertain markets there is more ambiguity in relationships because of which suppliers may choose to spread resources over multiple buyers instead of committing to a specific relationship (Ma et al., 2021). Another major problem was that in uncertain markets availability of materials seemed to be a very large issue, mostly due to sudden restrictions for example due to political instability and regulatory changes that firms have to abide by. All of this means that buying firms need to be aware of the state of the market and know what to do when it will be harder to obtain resources due to market uncertainty. Besides explaining the relationship found in the experiment, strategies to deal with market uncertainty were proposed in the interviews. First of all, it is important to keep in close contact with suppliers to paint a clear picture of the situation ahead regarding developments in the market and specific developments of a partner. Especially in uncertain

markets this is important since it is much harder to see what the future holds (Wathne & Heide, 2004). This opposes existing views that in market uncertainty it is more important to explore new relationships than to stay close to existing relationships (Zhang et al., 2023). What the better strategy is might depend on the supply base a firm has. When a supply base consists of strong international suppliers who mostly shape the market, existing relationships may be better able to help paint a picture of market development and future situations than a supply base with smaller local suppliers. In uncertain markets buying firms should take a flexible approach, being prepared to make engineering changes to products when necessary to enhance resource acquisition. With this internal flexibility, the negative effects of market uncertainty may be minimized because a firm can switch between different materials for the same purpose. Therefore the risk of being able to obtain necessary resources is reduced because supply risk can be spread over different markets with different levels of uncertainty.

Supplier dependence and market uncertainty seem to exist next to each other and do not have an interplay effect. However, purchasers should take into account that it will still be harder to obtain resources from dependent suppliers when markets are more uncertain compared to a stable market. Furthermore, the results suggest that personal characteristics of people such as risk aversion can have a significant influence on how resources will be allocated. Therefore buyers need to also consider personal characteristics and interpersonal relationships when trying to achieve preferential resource allocation. Buyers should act differently with different suppliers because of these personal differences between different sales representatives. When noticed a person is more risk averse it should be easier to obtain more supplier resources, possibly because that person is more afraid of the consequences of losing the account. So when the representative of a supplier shows signs of taking more risks or when figuring this out in another way it can mean that the buyer needs to put more effort into the relationship to achieve a preferential resource allocation.

6.2 Theoretical Contributions

This study makes several theoretical contributions. First of all, it provides depth and explanation in the discussion about the influence of supplier dependence on supplier resource allocation decisions. Where previous studies on this topic used real-life data where there might be more external influences (e.g. Pulles et al., 2023), this study takes an experimental approach, resulting in a similar outcome. Thus strengthening the argument that supplier dependence leads to preferential supplier resource allocation. This opposes some past studies that argued that suppliers might spread resources over more different buyers to decrease supplier dependence (Casciaro & Piskorski, 2005). Because allocating resources leads to more mutual dependence decreasing uncertainty for a supplier, this study offers another reason why dependent suppliers allocate more resources to powerful buyers. Therefore this study also adds to the existing argument that supplier dependence might also have benefits for suppliers (Kim, 2020) and that resource allocation keeps buyers satisfied with the relationship, because of which the relationship will be retained (Gelderman et al., 2020). Furthermore, the interviews in this study suggest that signalling commitment by sharing information will benefit the buyer, also in cases of supplier dependence. It can enable suppliers to anticipate the expectations of a buyer by taking away uncertainty for the supplier, who will be better able to facilitate preferential resource allocation for a specific buyer due to the shared information (Ma et al., 2021). This opposes a previous indication by Pulles et al. (2023) who suggest not to signal commitment to a dependent supplier with supplier-specific investment. Thus there are signs that different ways of signalling commitment might influence supplier resource allocation decisions differently in case of supplier dependence, which might be interesting to explore further.

Second, this study confirms previous studies that found negative effects of market uncertainty on buyer-supplier relationships (Ma et al., 2021; Han et al., 2014). Market uncertainty can lead to firms looking to broaden existing networks rather than reinforcing current relationships in uncertain markets (Howard et al., 2016). More specifically this study adds further depth in this regard by providing statistical evidence that there is a negative relationship between market uncertainty and the amount of resources a supplier allocates to a buyer. This shows that suppliers are more reluctant to commit to existing customers when active in an uncertain market. However, there are things that a buyer can do to try and mitigate the negative effects of market uncertainty. First of all, firms should keep in close contact with current suppliers and share valuable information to increase supplier commitment. Contradicting the study of Zhang et al. (2023) who argue that exploring new relationships is more important for obtaining information than retaining close relationships in uncertain markets. A possible reason for these opposing findings is that Zhang et al. (2023) sample is fully from China, whereas this study only includes European responses. Previous studies also argued that market uncertainty would decrease trust and generally lead firms to care less about relationships with other companies (Wang et al., 2022; Zhang et al., 2021). In this discussion, this study argues that it is important to try and keep up trust in times of market uncertainty and try to improve relationships to create a situation where buyers and suppliers provide each other with information about market movement and what is going to happen in the future. This way firms can help each other in uncertain times.

6.3 Limitations and Future Research

Taking an experimental approach has some advantages such as isolating a few variables and therefore making it clear that this is what determines the study outcome. However, context that might be present in real life is ignored which possibly could have an impact on resource allocation decisions. Because previously similar results were found for supplier dependence on supplier allocation (Pulles et al., 2023) the experimental approach does not seem to have had a large impact on these results. More caution might need to be taken when interpreting the results of market uncertainty since there is no study using a real-life context confirming the discovered negative effect on supplier resource allocation. Another limitation is the reliability of the risk aversion control variable. Risk aversion has a significant influence on resource allocation decisions, but the construct was measured on six different scales which did not have consistent scores leading to a low reliability score. Therefore caution should be taken when interpreting the effect of risk aversion on supplier resource allocation in this study. It also indicates that different risk aversion measures may lead to different results which is something future studies should keep in mind. Furthermore, this result leads to the question if there are more personal characteristics that might influence resource allocation decisions. Also, relatively few interviews have been conducted to draw hard conclusions. Even though the findings among interviewees were fairly consistent, all were performed in the same firm. Therefore the culture and chain of thought of this firm may have influenced the interview results. Performing the interviews in more different firms would have increased the generalisability of the interview findings.

This research also spurs some more avenues for future research. First, the interviews put forward two groups of suppliers who allocated more resources. These are dependent suppliers and suppliers who see a lot of growth potential in a possible relationship. Where this study focuses on the effect of supplier dependence on resource allocation, the influence of growth potential has previously been demonstrated as a reason for suppliers to allocate more resources (Vos et al., 2016). It could be valuable to test these next to each other to see which of these variables has a larger influence on supplier resource allocation. The results of such a study might indicate whether suppliers prefer stability in strong current relationships or potential in future relationships and how suppliers balance this. The

findings of such a study may be heavily influenced by the goals or environment of a specific firm and therefore require a cautious approach. Second, the interviews also raised a question of cultural differences in supplier resource allocation decisions. American suppliers seem to handle supplier dependence differently than European firms. In business relationships between different cultures, it can be harder to achieve mutually beneficial outcomes (Ribbink & Grimm, 2014). Additionally, companies in different cultures have differences in strategies and use different tools for purchasing (Karjalainen & Salmi, 2013). Suppliers might tailor their services for customers in the same country since there might be an expectation that this is the *normal* situation. This might make aligning global relationships harder and therefore also obtaining preferential resource allocation at a supplier who has a different culture. Therefore it would be interesting to research how culture plays a role in supplier resource allocation decisions and how culture influences how firms handle dependency situations.

Regarding market uncertainty, it would be interesting to test whether the influence on supplier resource allocation is even stronger when including a mediating effect. A question raised by the interviews where it was often mentioned that market uncertainty leads to more availability issues or ambiguity about resource allocation. This may have been the reason that firms will be more cautious about allocating resources to a buyer in an uncertain market indicating a possible mediation effect. Furthermore, it would be interesting which of the factors mentioned in the interviews will actually succeed in mitigating the negative effects of market uncertainty regarding supplier resource allocation by performing empirical tests. A final suggestion which may be a bit distant to this study is to research the effect of alignment of interest between firms on relationship quality. For example, do relationships benefit if both businesses have similar interests or goals for example regarding sustainability? This could also include testing the effect of value alignment and similarities in mindset between different firms on how firms perceive the relationship quality to be.

7. Conclusion

Buyers compete with a lot of other firms for the same supplier resources. To make sure a firm gets preferential treatment in obtaining supplier resources compared to competitors it is important to know how suppliers make resource allocation decisions. This study adds to the growing body of literature about how to achieve a preferential resource allocation position by focusing on the influence of supplier dependence and market uncertainty on supplier resource allocation decisions. This study provides clarity about the positive effect of supplier dependence on supplier resource allocation. Furthermore, findings indicate that if a market is more uncertain, a supplier will be more cautious in allocating resources to buyers. Finally, this study should help buyers understand how suppliers will act and give suggestions to buyers on how to act when suppliers are dependent and how to minimize or mitigate the negative effect of market uncertainty.

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9. Appendix A

Table 3 shows the division of the block design of the policy-capturing experiment. One of which will be presented to each participant in the policy-capturing experiment. It shows whether the high or the low option (1 or 0) will be used in which scenario. From left to right the numbers describe this for the variables: supplier dependence, market uncertainty, buyer-specific uncertainty, relationship length and buyer distinctive competences.

Table 4: Scenarios in the block design [a]

Customer	Block 1	Block 2	Block 3	Block 4
A	11000	10010	11010	01010
B	11111	10101	11101	10000
C	00001	01110	00100	10110
D	00111	01111	11100	01101
E	00000	01000	00010	10001
F	11110	10011	11011	01011
G	00110	10100	00101	01100
H	11001	01001	00011	10111

[a] The numbers represent the HIGH (1) or LOW (0) scenario for the variables. From left to right: supplier dependence, market uncertainty, buyer-specific uncertainty, relationship length and buyer distinctive competences.