1. Introduction
Nominalization refers to “the process of forming a noun from some other word class (e.g. red-ness) or (in classical Transformational Grammar especially) the derivation of a noun phrase from an underlying clause (e.g. His answering of the letter... from He answered the letter)” (Crystal 1991: 232-234).

This study deals with the first type of nominalization, which is labeled as “lexical nominalization” by Givón (1984: 498). It is a process of lexical formation or word formation. In Thai, lexical nominalization means the process of deriving nouns from verbs, which can be done in several ways. The present study focuses only on deriving abstract nouns from verbs. This process may be specially labeled as “abstract nominalization” and the derived nouns as “abstract nominals” (see Prasithrathsint 1997).

Abstract nominals in Thai are marked by either kaan- (ก้าว) or khwaam- (ข้าม); for example:

1. kin ‘to eat’  →  kaan-kin ‘eating’
2. phätthanaa ‘to develop’  →  kaan-phätthanaa ‘development’
3. sadeeg ‘to perform’  →  kaan-sadeeg ‘performance’
4. sük ‘to be happy’  →  khwaam-sük ‘happiness’
5. yütitham ‘to be just’  →  khwaam-yütitham ‘justice’
6. cipcay ‘to be sincere’  →  khwaam-cipcay ‘sincerity’

According to Prasithrathsint (1997), the nominalizers kaan- and khwaam-developed from the lexical nouns kaam ‘work, affair, matter’, and khwaam ‘sense or substance of a matter; legal case, lawsuit’, respectively. The study also shows that kaan-nominalization emerged after khwaam- nominalization. In the Sukhothai period (the 13th century), three incidences of khwaam- nominalization were found. The kaan-nominalization, which is the most general pattern today, emerged in the late Ayuththaya period, i.e. around four centuries later, but became productive in the 20th century.

There are interesting questions concerning these two nominalizers in Thai; for example: "Why does Thai need two nominalizers?" "How are they different?" Are they complementarily distributed among the verbs in Thai? Prasithrathsint (1996) shows that

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1 I am grateful to Natchanan Yaowapat who presented the earlier version of this paper at SEALS XV on my behalf. Thanks also go to those who gave comments, especially Pittayawat Pittayaporn.

2 The other type of nominalization is “grammatical nominalization”, which refers to “the process via which a prototypical verbal clause—either a complete sentence (including the subject) or a verb phrase (excluding the subject) is converted into a noun phrase.” (Givón 1984: 498)
the two nominalizers differ in their occurrence in speech styles; i.e., kaan- nominals tend to occur more frequently in academic writing and khwaam- nominals in description and narration.

It is important to note that choosing kaan- or khwaam- to add to a verb is not at all arbitrary. There seem to be some rules that control the choice. However, so far there has been no attempt to explain precisely when to use kaan- and when to use khwaam-. On the contrary, there are only observations; for instance, Haas (1964: 29, 82) notes that when placed before active verbs to form noun derivatives, kaan- can almost always be rendered in English by the suffix -ing and sometimes by -ion, -sion, -al, -ance/-ence, and -ment. As for khwaam-, she says that it is usually rendered in English by -ness, -ity, -ment, -ance/ence, -(t)ion, -(t)ude, -ure, -y, -ery, -ship, -dom, and sometimes -ing. Yemnadda (1987) suggests that khwaam- occurs with verbs, adjectives3, and nouns, but kaan- with verbs only. He also adds that generally nominals with kaan- are similar to gerunds in English and that kaan- signifies movement whereas khwaam- signifies stability.

Suggesting that they are differentiated by types of verb, Morev (2004) states that kaan- is used for converting verbs, particularly action verbs, into abstract nouns, and that khwaam- is used for turning non-action verbs; i.e., verbs denoting states, feelings, qualities and properties into abstract nouns. He also suggests that in some cases both can be used with the same verb, but the meaning of the derived nominals will be different, e.g. kaan-taay ‘dying’, ‘death’ (a name of process) vs. khwaam-taay ‘death’.

As can be seen from the above observations, kaan- and khwaam- overlap to a considerable extent. Nevertheless, it can be generalized that kaan- is used with action verbs and khwaam- with non-action or stative verbs. However, this generalization is not completely valid because there are counterexamples. In actuality, some non-action verbs, which should be nominalized with khwaam-, are found to be nominalized with kaan-; for example:

3 In this study, adjectives in Thai are considered to be a sub-class of verbs called “adjectival verbs”, because syntactically they behave like verbs.

| 7. ráprúú | ‘to perceive’ | → kaan-ráprúú | ‘perception’ |
| 8. dáyín | ‘to hear’ | → kaan-dáyín | ‘hearing’ |
| 9. dáyklin | ‘to smell’ | → kaan-dáyklin | ‘smelling’ |
| 10. rianruú | ‘to learn’ | → kaan-rianruú | ‘learning’ |
| 11. trátsaruú | ‘to be enlightened’ | → kaan-trátsaruú | ‘enlightenment’ |
| 12. damrogyúú | ‘to exist’ | → kaan-damrogyúú | ‘existence’ |
| 13. wikhr̺ | ‘to analyze’ | → kaan-wikhr̺ | ‘analysis’ |
| 14. phakph̺n̺ | ‘to rest’ | → kaan-phakph̺n̺ | ‘rest’ |
Nominalization and categorization of verbs in Thai

In addition, some verbs are found to occur with both *kaan* and *khwaam-*; for example:

15. rîîpr³øn ‘to hurry’ → *kaan-rîîpr³øn ‘hurry’
   → *khwaam-rîîpr³øn ‘hurry’
16. klomklîîn ‘to assimilate’ → *kaan-kломklîîn ‘assimilation’
   → *khwaam-kломklîîn ‘assimilation’
17. rîîammîi ‘to cooperate’ → *kaan-rîîammîi ‘cooperation’
   → *khwaam-rîîammîi ‘cooperation’
18. klîkanwaîy ‘to move’ → *kaan-kîikanwaîy ‘movement’
   → *khwaam-kîikanwaîy ‘movement’
19. chuîyîlîa ‘to assist’ → *kaan-chûyîlîa ‘assistance’
   → *khwaam-chûyîlîa ‘assistance’
20. anukhr³ ‘to subsidize’ → *kaan-anukhr³ ‘subsidy, subsidization’
   → *khwaam-anukhr³ ‘subsidy, subsidization’
21. taîay ‘to die, to be dead’ → *kaan-taîay ‘dying, death’
   → *khwaam-taîay ‘dying, death’
22. BUT kîî ‘to be born’ → *kaan-kîî ‘birth’;
   → **khwaam-kîî ‘birth’

The examples above show irregularities in deriving abstract nouns from verbs in Thai. However, those irregularities may be superficial, and there may be some explanations for their occurrences. This study aims to provide such explanations. The above-mentioned suggestions given by Morev (2004) serve as hypotheses on the difference between the two nominalizers with reference to verbal categories in Thai.

Therefore, this study attempts to find out which types of verbs are nominalized by *kaan-* and which by *khwaam-* and in what ways they are differentiated.

The data on which the analysis is based are 5,600 verbs in Thai, which consist of *kaan-* and *khwaam-* nominalized verbs found in a two-million-word corpus of current Thai, and verbs taken from the Royal Institute Dictionary of Standard Thai (1999).

2. The frequencies of three patterns of nominalization in Thai

Based on an analysis of the frequency of the occurrences of verbs with *kaan-* and *khwaam-* in the data, it can be summarized that abstract nominalization in Thai can be divided into three patterns, and that the *kaan-* pattern is the most frequent. Next is the *khwaam-* pattern, and the *kaan-/khwaam-* pattern is the least frequent (see Table 1). The result confirms the findings in Prasithratsint (1997) that *kaan-* is the most general nominalizer in present-day Thai.

Table 1: The frequencies of the three patterns of nominalization in Thai

<table>
<thead>
<tr>
<th>Patterns of nominalization</th>
<th>Frequency (percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>kaan-</em></td>
<td>51</td>
</tr>
<tr>
<td><em>khwaam-</em></td>
<td>33</td>
</tr>
<tr>
<td><em>kaan-/khwaam-</em></td>
<td>16</td>
</tr>
<tr>
<td>total</td>
<td>100</td>
</tr>
</tbody>
</table>
3. Three categories of verbs in Thai
An analysis of each of the nominalized verbs in the data and its syntactic-semantic environments enabled me to divide the verbs into three categories according to their occurrences in each of the nominalization patterns mentioned in Section 2. The three categories of verbs are labeled here as perceptible, imperceptible, and balanced verbs.

3.1 Perceptible verbs
Perceptible verbs occur with *kaan*- only. They represent concepts that are easy to understand or characterize. They may be action or non-action verbs, and their meanings are perceivable due to certain common features or standards shared by native speakers.

Examples:

23. kôm ‘to bend’ → *kaan-kôm; *khwaam-kôm
24. klâaw ‘to state’ → *kaan-klâaw; *khwaam-klâaw
25. kôk ‘to be born’ → *kaan-kôk; *khwaam-kôk
26. kin ‘to eat’ → *kaan-kin; *khwaam-kin
27. khâây ‘to sell’ → *kaan-khâây; *khwaam-khâây
28. khuy ‘to talk’ → *kaan-khuy; *khwaam-khuy
29. khamoo ‘to steal’ → *kaan-khamoo; *khwaam-khamoo
30. khâapkhu ‘to thank’ → *kaan-khâapkhu; *khwaam-khâapkhu
31. cûka ‘to manage’ → *kaan-cûka; *khwaam-cûka
32. khâvrûam ‘to participate’ → *kaan-khâvrûam; *khwaam-khâvrûam
33. khoîphôp ‘to discover’ → *kaan-khoîphôp; *khwaam-khoîphôp
34. nîm ‘to introduce’ → *kaan-nîm; *khwaam-nîm
35. pâîrûp ‘to reform’ → *kaan-pâîrûp; *khwaam-pâîrûp
36. âhîbaay ‘to explain’ → *kaan-âhîbaay; *khwaam-âhîbaay
37. âphîpraay ‘to discuss’ → *kaan-âphîpraay; *khwaam-âphîpraay
38. hûar ‘to laugh’ → *kaan-hûar; *khwaam-hûar
39. hây ‘to give’ → *kaan-hây; *khwaam-hây
40. yiû ‘to stop’ → *kaan-yiû; *khwaam-yiû
41. hûaycay ‘to breathe’ → *kaan-hûaycay; *khwaam-hûaycay
42. sànyaa ‘promise’ → *kaan-sànyaa; *khwaam-sànyaa
43. sànsôm ‘to praise’ → *kaan-sànsôm; *khwaam-sànsôm
45. sôjsôm ‘to promote’ → *kaan-sôjsôm; *khwaam-sôjsôm
46. ânuýâât ‘to permit’ → *kaan-ânuýâât; *khwaam-ânuýâât

As can be seen from examples 23-46 and also examples 7-14 in section 1, the concepts represented by the verbs are discernible no matter whether they are associated with physical or mental activities. In terms of syntactic characteristics, they can be transitive or intransitive. In terms of semantic features, they can be verbs of activity, process, bodily sensation, transitional event, etc.

3.2 Imperceptible verbs
Imperceptible verbs occur with *khwaam*- only. In contrast with perceptible verbs, imperceptible verbs represent concepts that are difficult to understand or characterize.